

SUGARMAPLE



MAPLE TREE AUDIO DESIGN

Black Buff Amplifier



## Users' Manual

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## **Introduction**

The Black Buff is designed as a stand-alone tube-output-buffer for CD players, DAC or any line level device. The result is an improved tonal quality, relaxed open musical detail and imaging, reduced listener's fatigue and enhanced 3D effect of better recordings.

The Mapletree Audio Design Black Buff Amplifier represents a high performance development of an octal-based buffer amplifier that uses the 6SN7/5692 and is based on the cathode follower from the Mapletree Audio Line 2 and Ultra 4 pre-amplifiers. Premium components include metal film resistors and polypropylene film capacitors.

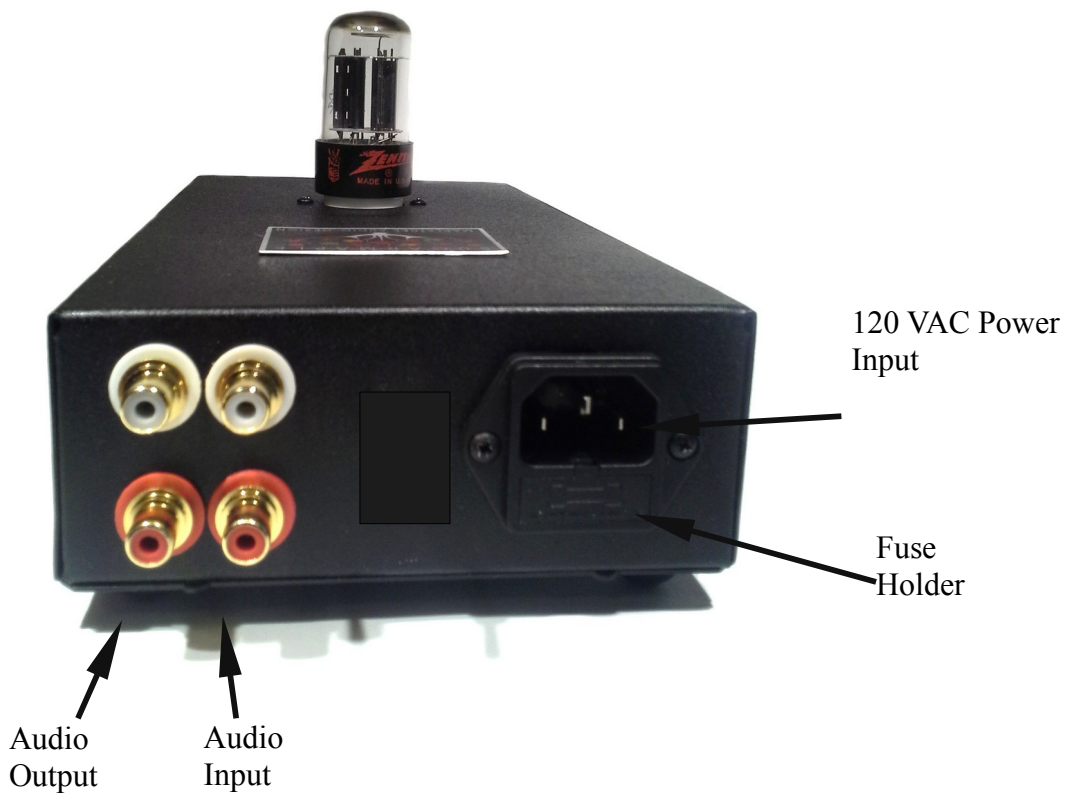
Many people would like to have the tube sound in their home theater without buying and building an expensive all tube system. This can be solved by adding three Black Buffs to the outputs of a DVD/Home Theater player to bring its performance up to a tube level quality. Placing one Black Buff on the front channel, one on the rear channels and a final unit on the center channel and sub output (three Black Buffs total), turns your DVD/Home Theater player into a respectable sounding 6 channel tube output with excellent sound.

## **Input/Output Connections**

There are a single pair of RCA input and output connections. The RCA jacks allow connection to a line-level stereo source while maintaining the connection to the regular amplification system. The input impedance is 100 K $\Omega$  which is compatible with all source output circuits. The RCA output jacks are also at the rear of the Black Buff and can handle loads as low as 5K ohms.

The standard IEC line cord is attached to the receptacle on the rear panel of the Black Buff power supply. It is compatible with a 120 AC volts. A 0.25A/120 V fuse provides primary protection for the power supply. It is located on the back of the power supply unit. Under normal conditions, it should not be necessary to replace the fuse. If power fails to come on, you can check the fuse and replace with a spare if necessary. If the fuse blows a second time, you should not try to operate the unit. Contact Mapletree Audio Design for information regarding servicing. The power switches are located on the front panel and the LED pilot light indicates the power on.

# Black Buff



## **Controls**

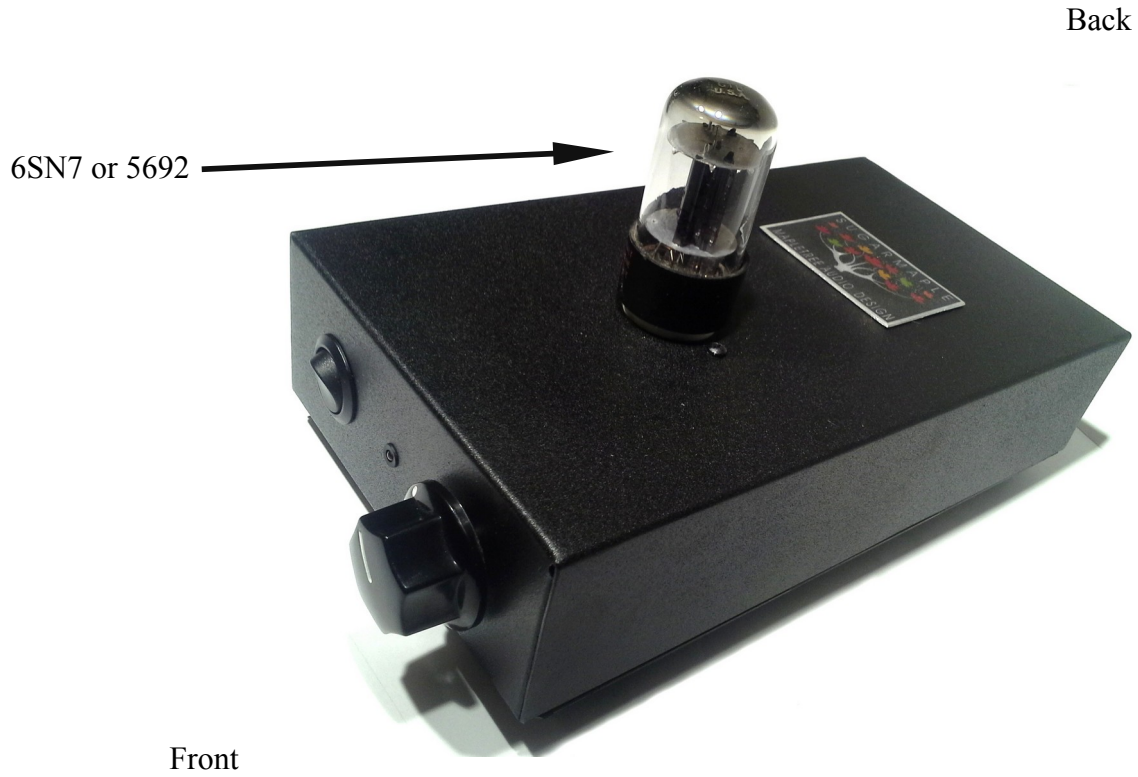
The signal level in both channels is controlled simultaneously by the Alps volume control on the front panel of the Black Buff amplifier.

## **Tubes**

A tube burn-in period of several hours may be needed to achieve the best sonic performance. Tube life should be thousands of hours. Aging tubes may result in a reduced gain in one or both channels or an increase in noise levels. Infrequently, a heater may burn out which is indicated by total loss of sound. The Black Buff is supplied with 1 – 6SN7 tube. Replacement tubes can be obtained from several suppliers in the U. S. and Canada. 6SN7 types are currently manufactured and are also available as new old stock (NOS). Some listeners enjoy trying different brands and variants of tubes. The greatest sonic variation will occur with different driver tubes.

## Warranty

Tubes are warranted for 90 days exclusive of shipping cost.

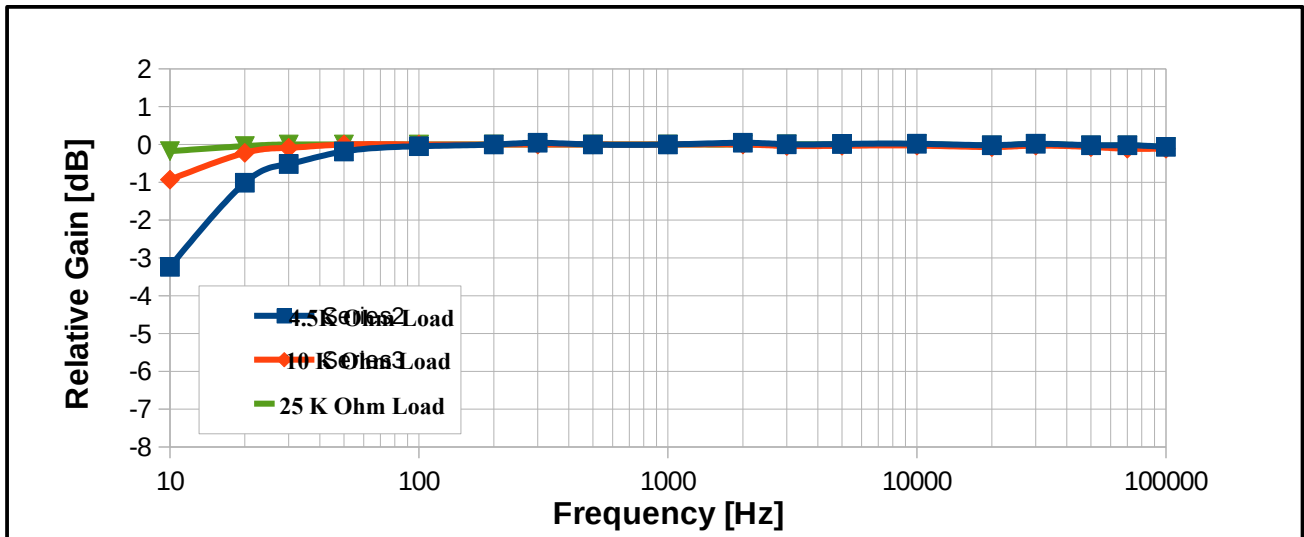


## Additional Notes

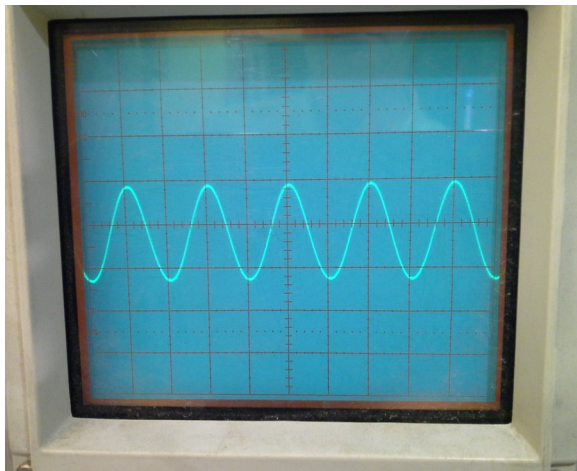
This manual is an aid to the user for the operation of the Black Buff. Details of the amplifier and power supply circuits are subject to change without notice so as to achieve the best possible performance. The schematic is only representative of the actual amplifier and component manufactures, model and values may vary.

# MAD Black Buff Specifications

Frequency response at 0.2 Vrms output into 4.5k, 10k and 25k Ohms load:



1Vrms output at 1 kHz: 10K Ohm load predominately 2<sup>nd</sup> order distortion.



$V_{out}=1.0$  Vrms

- Output impedance at 1 kHz: 454  $\Omega$
- Input impedance: 50 k $\Omega$
- Hum and noise at output: less than 0.1m Vrms
- Phase: non-inverting
- Power consumption: 4 W, 120 VAC (230 and 240 VAC) 50-60 Hz

# MAD Black Buff Headphone Amplifier

Version: 5b

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