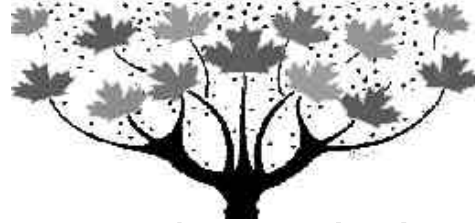
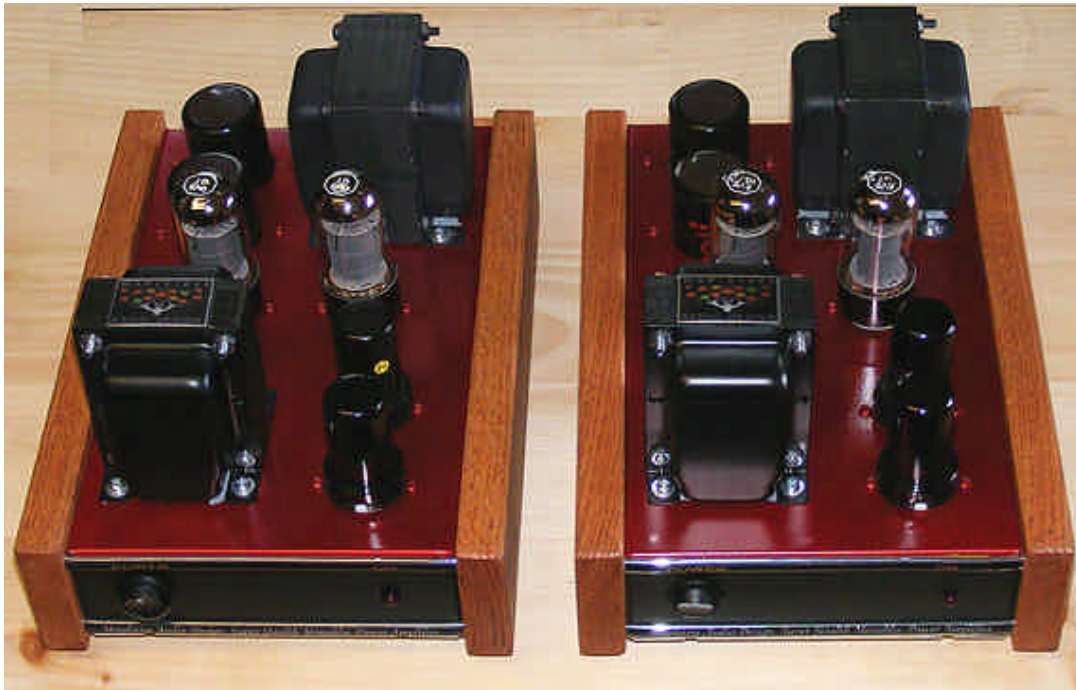


M A P L E T R E E



A U D I O   D E S I G N

***Super Stealth***  
**Monobloc Power Amplifier**



***Users' Manual***

Rev. Apr. 29/12

Mapletree Audio Design  
Lloyd Peppard  
R. R. 1, Seeley's Bay, Ontario, Canada, K0H 2N0  
(613) 387-3830  
info@mapletreeaudio.com  
<http://www.mapletreeaudio.com>

© Copyright Lloyd Peppard 2002-12

## **Introduction**

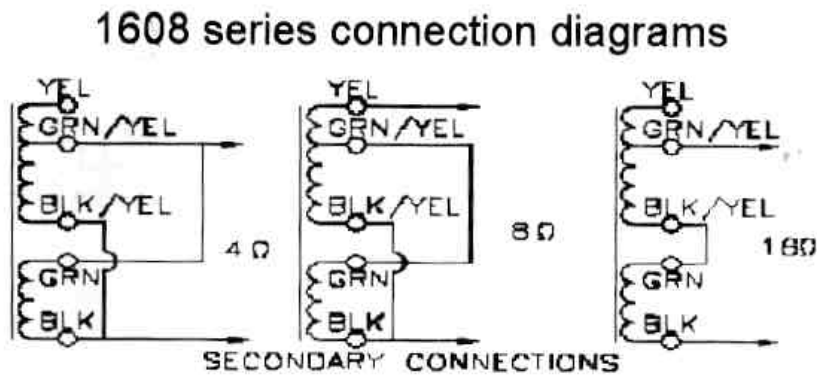
The Mapletree Audio Design *Super Stealth* Monobloc Vacuum Tube Power Amplifier provides 8 W of clean output power within a compact chassis and offers a number of desirable features:

- ? ? The exclusive use of high quality new old stock (NOS) and current production tubes that can be obtained at modest cost from many suppliers.
- ? ? Class AB Ultra-Linear push-pull beam power tetrodes delivering 8 Watts output power at low distortion.
- ? ? Wide frequency response: 20 Hz – 20 kHz –1 dB at full power output.
- ? ? Optional input volume control and high sensitivity of 0.45 V permit use without a line preamp if desired.
- ? ? DC heater power supply for low noise.
- ? ? The exclusive use of *Nichicon* polypropylene film signal capacitors and *Nichicon Muse* high performance electrolytic cathode bypass capacitors.

## Adjustments

**Level control** (optional) – The sensitivity of the *Super Stealth* is 0.45 V to produce full power output. For some high-output preamps, it may be advantageous to reduce the input level in order to shift the preamp volume control nearer the mid-position for normal listening. The *Super Stealths* can also be used without a preamp, directly from a source (e.g. CD player) using the level controls for volume and balance adjustment.

**Speaker impedance** – The standard wiring is for an 8 Ohm loudspeaker. If 4 or 16 Ohm outputs are required, the wiring will need to be changed under the chassis. The connection diagram below shows the connections to be made.



## **Specifications**

Tube complement: 12SJ7, 12SC7, 2 x 6V6GT matched pair

Rectifier: solid state with ultra high-speed silicon diodes

Output configuration: Class AB<sub>1</sub> ultra-linear push-pull with self bias (6V6GT matched pair recommended)

Phase inverter: cathode-coupled

Heater supply: dc heater voltage for all tubes

Rated power output (8? ): 8 W

Frequency response at 2 W output: 20 Hz–20 kHz –0.5 dB

Frequency response at 5 W output: 20 Hz–30 kHz –1 dB

Gain: 25 dB (17.8) or 0.45 V input for 8 W output

Input resistance: 430 k?

Noise: less than 0.7 mV (81 dB below rated output)

Dimensions: 6"W x 11" D x 5" H overall (*SE* version is 9"W x 13" D x 6" H)

Weight: 10 lb

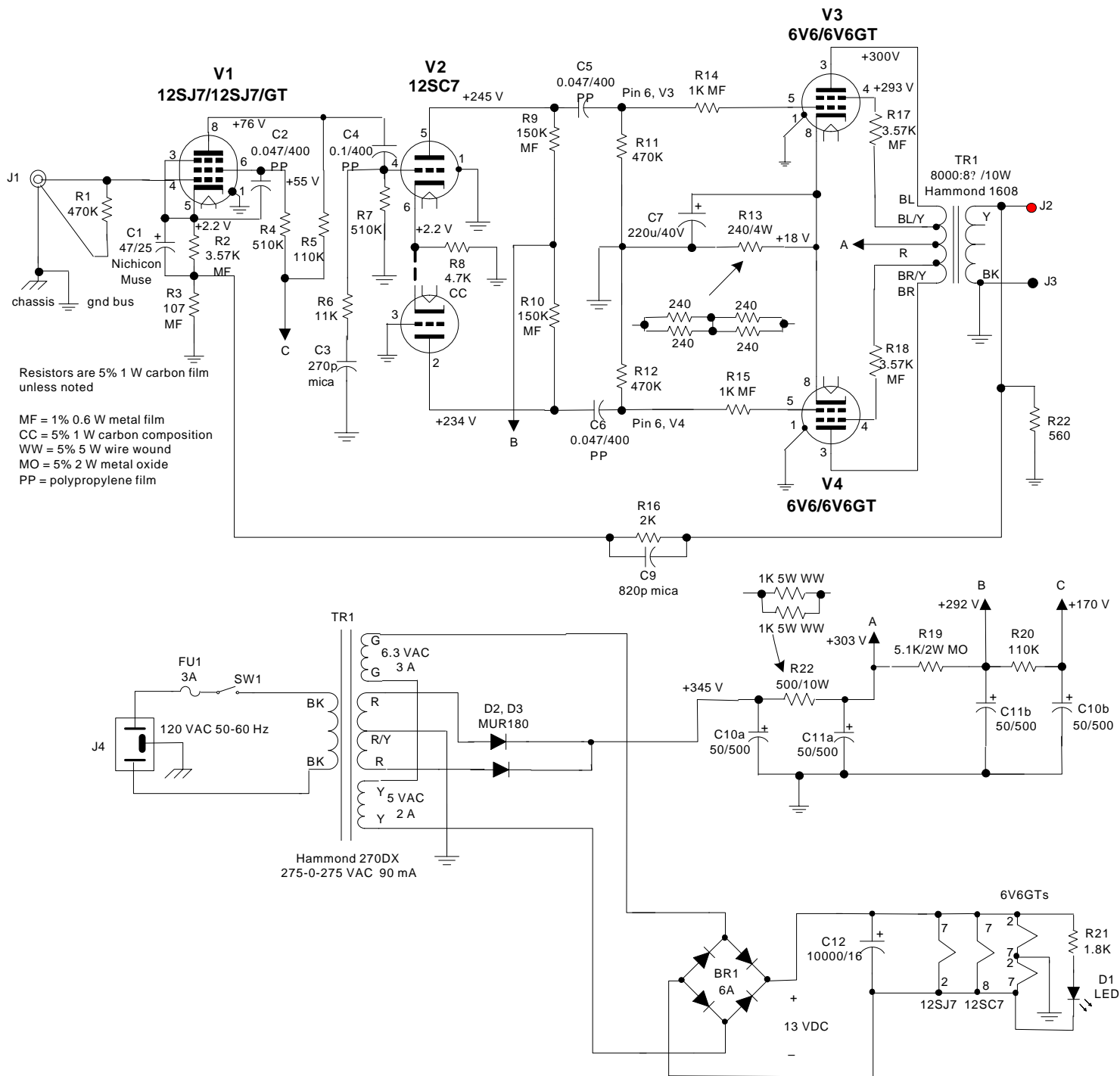
Power consumption: 70 W, 120-125 VAC 50/60 Hz

Fuse: 3 A fast blow type rated at 250 V (located inside chassis)

# Mapletree Audio Design *Super Stealth* Monobloc Power Amplifier

© Copyright Lloyd Peppard 2004-12

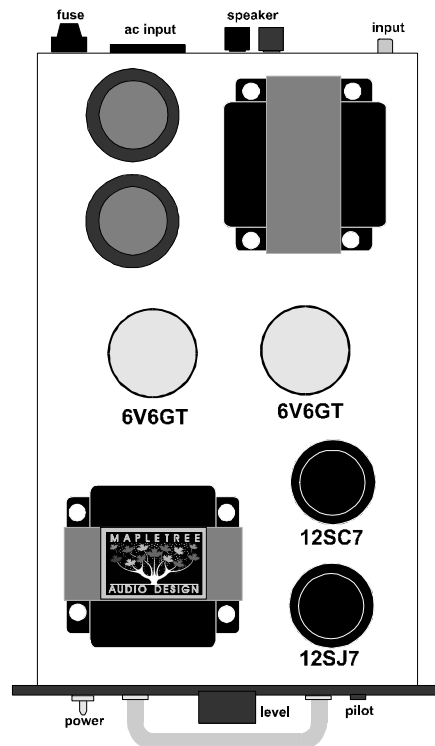
Rev. Apr. 29/12



## Tube substitutions

The Russian-made 6V6GT output tubes supplied are an excellent sounding, high-reliability design, replaceable at modest cost. However, users may wish to substitute NOS (new old stock) versions from a variety of manufacturers made over the past 70 years. The metal 6V6 is also a possible substitute and may offer a different sonic character than the glass versions. Matched pairs are recommended.

The 12SJ7 is a pentode developed for audio and low frequency RF circuits and exhibits very low noise. It rivals the EF86 in most respects. It is also available in glass as the 12SJ7GT. The 12SC7 is electrically equivalent to a 12SL7GT but with a common cathode shared by the two triodes. It is especially well suited to the phase splitter role in the *Super Stealth*. There is no substitute for this tube nor is there a glass version.



*Super Stealth* tube layout