

### Construction

This is one amp I would not want dropped on my foot. Weighing in at over 85 pounds, the SVT is truly built like a tank. That size and weight is not wasted, however. The head cab supports preamp circuitry in a first chassis that is located towards the top of the cabinet. Of note here is the angled plate that the preamp tubes extend through. This feature not only efficiently utilizes space within the head cab, but it also makes swapping tubes much easier – especially when the head cab is perched on a corresponding speaker cab. A separate chassis is bolted to the bottom of the head cab that supports the transformers and output circuitry, and a single Molex connector couples the preamp to the power amp. In *Fig. A* below, the power tubes were removed to illustrate the separate preamp chassis and power amp chassis. In this view, the rear grill was removed, which is all that is necessary to gain access to the preamp tubes and power amp tubes.

One aspect that I really love about this amp are the features directed towards basic serviceability and routine maintenance. Pull the Ampeg grill cloth off the front cover to expose the chassis, as seen in *Fig. B*. When facing the front of the amp, the controls necessary to bias the amp are on the face of the chassis to your left, with clear instructions on biasing to your right. Also from the front, you can easily change several of the phase inverter and power amp driver tubes.

Internally, the SVT is a combination of circuit board construction and hand wiring, as illustrated by gut shot of the power amp shown in *Fig. C*. As this shot illustrates, despite the use of PCB boards, there is still quite a bit of manual labor and hand wiring required to assemble this amp.

### Understanding the Amp

The amp is divided generally into two channels. The first channel utilizes three 12DW7 tubes, each tube associated with a corresponding series stage. The first stage implements selectable ultra-hi filtering controlled by the ultra hi switch,

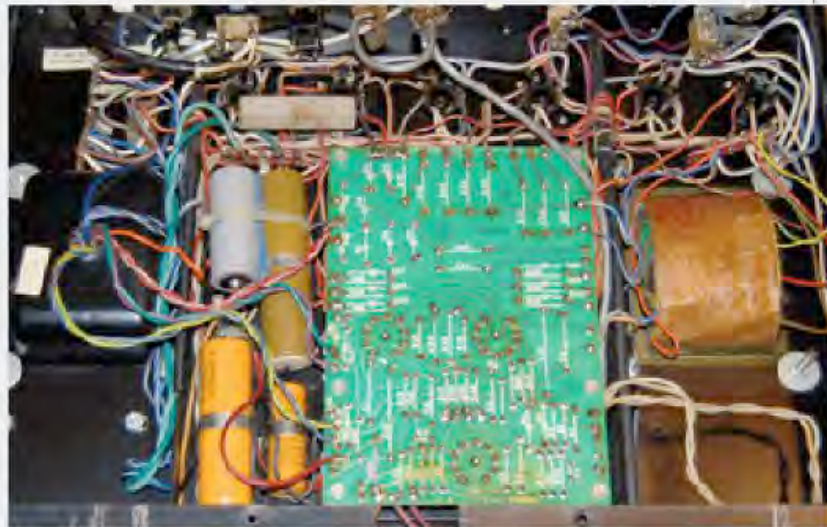


Fig. C - Power Amp chassis

selectable ultra-low filtering controlled by the ultra low switch, and volume control. The second stage implements the treble and bass filtering, and is implemented by a classic Baxandall tone stack.

The third stage implements the midrange control.

The second channel utilizes a single 12AX7 and two serial stages. As with the first channel, the first stage implements the ultra hi and ultra low functions that are simplified over the versions implemented in the first channel. Also like the first channel, the second stage implements the treble and bass filtering and utilizes the same Baxandall circuitry utilized in the first channel.

A single 6C4 tube is used to mix the output of the first and second channels, and the output of the mixer is coupled to the power amp circuitry, which includes a 12DW7 phase inverter tube, a pair of buffer/driver 12BH7 tubes and a sextet of 6550s. Particularly, the phase inverter (PI) splits the signal from the mixer into two signals that are out of phase

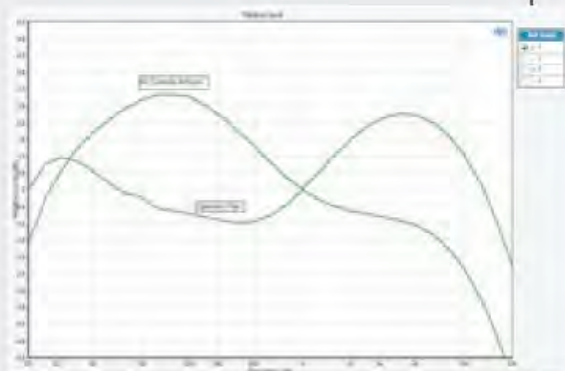


Fig. D - All Controls at noon EQ compared to Optimally Flat  
-10dBu input signal swept 20Hz-20kHz  
Deviation +/- 2.23dBu



Fig. E - Optimally Flat EQ settings  
Ultra hi set to 0, midrange set to 220Hz and  
Ultra lo set to 0 (middle position)