Subject: Re: 7 Pi treble edge!
Posted by Wayne Parham on Tue, 02 Jun 2009 05:27:50 GMT
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I think multisub is the way to go, in spite of the extra complexity. If you're looking for the best bass, the multisub approach is the way to get it.

Beyond that, there may be some issues in the upper modal range, which is actually fairly low in frequency. If voices sound kind of throaty or peaky, that's the upper modal range. It's hard to say from just a description, but from what you say about your sound sources and where they are located, I think that may be a possibility.

If it is higher, in the overtone region, it may be excessive reflections in the midrange or treble. Again, it's hard to say from a description, but in a small room, I'd look at those things. Small rooms can sound like echo chambers, sort of like singing in the shower. You might want to try hanging some thick material a few inches from the wall to see what extra acoustic damping at MF and HF would do. If it helps, it might be worth it to install acoustic wedges on the walls.

I have used a half dozen DE250 drivers and they all sounded smooth to me, right out of the box. However, I have noticed that some got beaten up pretty badly in transit. I've seen chips of magnet material in the bags they come in. They're not protected very well from damage, in my opinion. I suppose it might be possible that a driver could be damaged. Doubtful that you wouldn't have noticed it before now though.

Check your tubes too. I recently noticed that one channel of my amp was sounding not quite right, so today I got into the amp and found a cathode resistor was hot enough to melt solder. It would act intermittently like it was in and out of the circuit. Two are in parallel, so when one disconnects, the cathode voltage rises. The grid voltage was high, so there was excessive quiescent current flowing through the cathode to anode.

I've seen this before with bad coupling caps, so my first thought was it happened again. I lifted the input coupling cap and measured voltage on the grid. To my surprise, the voltage stayed high. It actually was normal from a cold start through several minutes of warm up. But then the tube started acting like it was in thermal runaway. I know that's not tube terminology, but that's what was happening. As the tube warmed up, it mysteriously biased itself on harder and harder.

No problem, I have several tubes in stock. Put a new one in and it was golden. I had made the problem harder than it had to be, going through all that before swapping tubes. But it was getting hot enough to melt solder, so I needed to flow some clean solder in anyway.

The point of all this - sorry for the long winded chatter - is that the amplifier sounded a little grungy, and had been for several days. It creeps in slowly, so you don't notice it at first. Seems like something else is wrong, bad source, bad speakers maybe. But in fact, it was a bad tube. Not totally, it still played music. Sort of a sleeper problem.

So don't stop looking. Swap things around until you're sure you've found it. I've never heard a DE250 on the H290 or my wood horn sound any way other than very smooth. The measurements say so too. But that doesn't necessarily mean this is always true, surely there are some lemons

out there.  Same thing for the midhorn with the Delta 10.  It sounds silky smooth to me.  But get one with a rubbing voice coil and it would sound terrible.  Or if the room is too lively or the amplifier getting a little old, you just never know what is causing your harshness until you find it, then hindsight is 20/20.