Subject: Tweeking the Silver Iris
Posted by hurdy_gurdyman on Fri, 03 Feb 2006 04:13:09 GMT
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I have a simple and free tweek for the crossover that can pull the midrange forward on the Silver Iris, helping what many would call a laid-back midrange. First, I must warn you that modifying the crossover will probably void the crossover warrenty. Second, if you're not good at soldering, have someone who is do this. You risk damaging the capacitors if you apply heat to long. Third, I take no resposibility for anything that goes wrong. Do at your own risk. I ,and a few others, have commented on the Silver Iris having a laid-back midrange. It occured to me today that I've heard this before. Many systems using a 2nd order crossover on the tweeter (including many pro systems) have this same problem (at least to my ears). Darrel mentioned he didn't design the crossovers, that he had the manufacturer (Eminence) do this. I think they were thinking like pro speaker designers, which is that protecting the tweeter at high power is a high priority, thus the typical 2nd order design. This is, with the values chosen (probably textbook), causing a "hole" in the response just below the crossover point. We need the tweeter to fill in a bit lower. Here's what to do: Un-solder the 2 uF capacitor from the 5 uF cap on one end. You should use a de-soldering braid or a vaccume de-soldering tool. Be careful not to leave the heat on for to long. The caps are wired together right at the body of the larger cap and heat can cause damage there real fast. Of course, these caps should only cost a couple of dollars each to replace, so no big deal (may even be an excuse to get better caps). Next, un-solder the lead of one side of the smaller inductor coil. Now, finally, reverse the leads to the tweeter so + goes to + and - to -. You have just converted the tweeter to a first order crossover. This will help fill in the area below the crossover point. You could even try soldering a 1 uF cap where the 2 uF cap was before for a slightly lower crossover point. The drawback to all this (there's always a drawback) is that the power handling is lowered, probably by half. This means that the speaker systen just went from a rating of 150 watts to around 75 watts. I imagine all the SET users around here are really worried about this. With the first order crossover hooked up, I wouldn't worry about using any tube amp up to around 100 watts, as tubes do clip soft. SS users should be a bit more carefull about clipping and stay under 75 watts or, if using a bigger amp, use some common sense. I like what I'm hearing much better now. I don't know if you will or not, but at least it's a reversable tweek. Dave