

---

Subject: dash tweeters sibilance

Posted by [Jim Snyder](#) on Sun, 06 Aug 2006 16:31:18 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Hi,I have Infinity Reference 1011t tweeters in the dash of my Jeep Liberty. I have calculated that a 3 ohm resistor in series will provide the aproximate level of attenuaton that I require. I have full range Boston Acoustics speakers in the doors that normally sound great on their own. I'm getting sibilance I'm guessing is somewhere between 2.5 and 4.5 dB and 3.5 kHz and 8 kHz. The 4 ohm silk dome tweeters have a 2500-21k frequency response and use a Passive 12dB/octave Crossover at 3.5 kHz. Maybe the highs reflecting off the glass is contributing to the sibilance. My 2 questions are; 1) Will simply puting a 3 ohm resistor in series lower the crossover frequency? 2.) Would raising the crossover frequency be a better approach to curing the sibilance? Led Zeppelin sounds too harsh. My test for overall balance is the local oldies FM station with a switch to the country station just to make sure the bass isn't too much. LOLI simply want to have a balance sound without the sibilance. My Pioneer head unit with Automatic EQ and time alignment which uses high frequencies for its calculations cuts the outputs to the front channels by 6 dB in relation to the rear doors. Front channel powers both the doors and dash tweeters. Help!

---

---

Subject: Re: dash tweeters sibilance

Posted by [Wayne Parham](#) on Mon, 07 Aug 2006 04:10:41 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

While I think probably the harshness in the upper mids is probably due to acoustic issues like the interaction of reflections, be aware that a series resistor will cause some peaking. The amount of peaking depends on the crossover and on driver reactance values, but it can be quite severe. So that could be the cause. Look through the "Crossover Electronics 101" seminar handout for more information on this kind of peaking. But before looking into that, move around inside the car and listen to the sound balance. If it only sounds bad in your listening position and sounds better in others, then its an acoustic interference issue. In that case, move the tweeter location.

---