Subject: Re: Adding a Tweeter
Posted by Wayne Parham on Sat, 03 Jan 2004 23:01:49 GMT
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If you add a tweeter with a series capacitor, the addition will not lower system impedance except at frequncies below that which capacitive reactance approaches system impedance. As an example, if all your drivers have advertised impedance of 8 ohms, then the use of anything smaller than about a 2.2uF capacitor won't decrease system impedance throughout the audio band. At about 3.3uF to 4.7uF, system impedance will drop to ~6 ohms in the top octave if the tweeter is an 8 ohm driver.In any case, I suggest using a shunt resistor across he tweeter of about 1.5 times the advertised impedance to damp the circuit. The capacitor and tweeter voice coil form a resonator that will have a small peak around the crossover frequency, and a shunt resistor will help damp this peak.