Subject: Aluminium vs plastic horns, third-order vs fourth-order crossovers...
Posted by Magnus on Wed, 20 Aug 2003 11:13:20 GMT
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Wayne and the rest of the board!I know this has been up before but anyway. Do cast aluminium horns have any sonic advantages (besides mechanical and esthetic) over plastic ones (ABS+fiberglass)? (I can see a potential "ringing" resonance problem with aluminium horns which maybe can be fixed with sufficient damping or????).My project at hand is upgrading a pair of speakers (Eminence Kappa 12 + Motorola KSN-1141) with a compression driver and horn. I have been eyeballing the P.Audio BMD-440 (http://www.paudio-europe.com/products/db_product_2_6_bm-d440.htm) paired with a B&C ME45 horn (http://www.bcspeakers.com/compproducts/horns/me45.htm). The choice of driver and horn in this case is limited to what physically fits my boxes (the CD must have a diameter of less than 120 mm, the horn have to fit nicely on the baffle). Does anyone have comments on P.Audio stuff or even the CD/horn combo?I was thinking of using a third or fourth-order network around the recommended crossover frequency of 2.2 kHz. It seems to me like most people are using third-order rather than fourth-order networks for this kind of thing. As an engineer but with limited actual audio experience I can see the time-domain benefits of 18dB/oct compared to 24dB/oct and also the potential problem of matching 2 coils and 2 caps in the latter but from an experience point of view, what tends to be the best for most applications and why? The woofer LP network is an impedance corrected ("Zobel") 12dB/oct Butterworth @ 2kHz.ThanksMagnus