Subject: 3 horn/driver comparison by backyard mechanic
Posted by spkrman57 on Sun, 15 May 2005 12:11:17 GMT
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Wayne, I hope you don't mind, but I chose this over the hi eff spkr forum since it involved the 4 pi-pro drivers and crossover.Background info: JBL 2226H(in JBL 3677 cabinet/approx 3-4 cubic ft tuned to approx 40hz), .7 mh coil(PE 14 guage perfect lay)Pi crossover(PE 1.6khz/3rd order) with 15ohm shunt/30 ohm series w/.33 ufd cap. I added .68 ufd caps in parallel with the 2 caps on the PE 1.6khz crossover(ala JBL crossovers).I have found that using a 8 ohm or 16 ohm horn driver will work with this basic crossover, differences are mainly on the HF compensation chaging slightly and slight difference of efficiency.Horn/driver:1. JBL 2370A - Bi-radial flat front horn(plastic)/2426J driver.I found the JBL combination having nicest upper midrange of the 3 setups, however the top frequencies are lacking in this combo.2. Altec 902B - Edgarhorn/650hz tractix/round wooden horn.I found this setup had the best upper frequencies and the best imaging "IF" the time is spent to adjust the position of the horns to just outside the listeners ears and slightly above. The imagaging becomse 3D with this combo. The midrange is not as sweet as the JBL though. (Personal tastes in listening would make both of these desirable for different reasons. 3. Altec 806-8A - Altec 811B aluminum horn. This is what I call the "best bang for the buck" combo. While not as focused as Altec/Edgar combo, the soundfield is wider and more laid-back(think of the wall behind the speakers being deeper). While many complain about the "cowbell" ringing effect, when playing music through them I hear nothing unless you tap them. You can find these horns and drivers on e-bay and through forums. There are many out there to be had and make a fine system when added with a 12" or 15" driver in a 2-way system.Other notes: The JBL 2426J is a 16 ohm driver and I tried with 15 ohm parallel resistor across the driver, that helped out the brashness of that systems sound.My favorite is the Altec/Edgar horn system. If you are so inclined to toe-in these horns directly to you, be fore-warned they beam strongly, so placement will find you the best balance between beaming and loss of HF response when too far off axis. I described my happy medium above in the system description.I have run the Edgarhorns/811B/511B horns before with 806A's which are 16 ohm drivers and notice they sound rather laid-back with softer detail than the 8 ohm drivers. There are times the 16 ohm drivers play certain music like classical better than the 8 ohm drivers which sometimes seem too much in your face!Last but not least, the JBL horn/driver system would be best in a 3-way system where a tweeter helping out at around 12khz would let the JBL upper midrange shine without the loss of upper HF response.I have also run the above drivers on Martinelli 650 hz rectangular tractix horns(wooden) and they are a half-way between the Altec 811B and the Edgarhorns. They don't beam like the Edgars, but have the dispersion of the 811B's.Disclaimer: I am posting this info in case someone out there wanted to hear my observations of the different horns and drivers. I hope if someone was making a decision concerning what they wanted in a system, this might help them decide.Sorry for the rather long post. Please comment freely on what I have said and I would like to see others post their observations. You don't have to be a expert to share your opinions, that is what makes this hobby so great!For those that did not catch it, there are some pics in the general forum of ART with pics of my living room and system(last pic by Colin H. shows the 811B's as we were swapping when he came to visit) Also, Bill E. posted some pics further down in the general forum "wrongsideofthetracks" search with that will take you directly there!Ron