Subject: Eminence 12LT Pi BR Qestion
Posted by Observator on Tue, 04 Sep 2001 14:31:25 GMT
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Hi again,I'm sorry but i can't find the rightdimensions of Pi-BR for Eminence 12LT...Could you send me, please, a rightdimension of the box and of the BR ?What's also the f3 for this dessign ?Thanks a lot,O'tor

Subject: Theater Series three Pi
Posted by Wayne Parham on Tue, 04 Sep 2001 14:44:54 GMT
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If you are talking about the Delta 12LF, the cabinet to use is the Theater Series three Pi.

Subject: Re: Theater Series three Pi
Posted by Observator on Tue, 04 Sep 2001 15:27:02 GMT
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Hi Wayne,Unfortunately not. Its not Delta 12LF. It Is Beta 12LT used in Thorsten Afterburner project. There was a post from you in another forum about a Pi-align for this driver, and i just can't find the details.Thanks in advance,O'Tor

Subject: Beta 12LT in PiAlign'ed cabinet
Posted by Wayne Parham on Tue, 04 Sep 2001 23:56:57 GMT
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You asked what Pi Alignments recommend for the Eminence Beta 12LT speaker. Eminence publishes the following specifications:Vas = 4.81 cubic feetFts = 45HzQts = 0.51And these correspond to PiAlign values of:Vad = 4.81 cubic feetFrd = 45HzQd = 2.0 (1/Qts)PiAlign recommends a bass reflex cabinet of 2.4 cubic feet tuned to 33.75Hz and having Q of 1.5. It recommends doing this using a 2.5" diameter port that's 2.75" long, which is very close to a perfect match - corresponding to Frd of 34.0Hz and Q of 1.56. Without any volume displacements, it is suggesting the cabinet be 24" x 16" x 11", but after consideration of the volume displaced by the speaker driver and the wood thickness, I'd expect your cabinet's outside dimensions to be closer to 26" x 18" x 14". And while these cabinet dimensions can be off a half

inch or so, be sure the port dimensions are "right on the money." You must have inside dimensions of 2.5" diameter and 2.75" long for the design to be optimal.

Subject: Re: Thanks a lot ! (nt)
Posted by Observator on Wed, 05 Sep 2001 05:19:55 GMT
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nt

Subject: Good luck and keep us posted!
Posted by AudioLapDance on Wed, 05 Sep 2001 09:44:42 GMT
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Hi Observator, Hey, who you lookin at! ;-)I built Thorsten's Afterburner but am now going to try the Beta12LT in a PI cabinet.Thorsten used an Extended Bass Shelf alignment (EBS) which is in the oposite direction compared to Wayne's alignment. It should make a nice comparison.Do you have the Rat Shack tweet? I found them too bright--could be too sensitive or the 1st order crossover isn't attenuating quickly enough so there's too much overlap at 8-10kHz.I'm going try a piezo tweet with a second order crossover.Good luck and please let us know how it goes,Cheers,Jeff

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Subject: Re: Good luck and keep us posted!
Posted by Observator on Wed, 05 Sep 2001 10:23:16 GMT
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Hi Jeff,> I built Thorsten's Afterburner but am now going to try the Beta12LT> in a PI cabinet.From my side, I was inspired by reviews about hammer dynamic super12. I haven't possibility to hear it, so i decided first to build afterburners for having an idea how 12" FR performs. what's your opinion ? Can you compare it with something I know ;-), let say FE103 or 40-1354 or FE208s....what's also your amplifier ?> Do you have the Rat Shack tweet? I found them too bright--could be > too sensitive or the 1st order crossover isn't attenuating quickly > enough so there's too much overlap at 8-10kHz.> I'm going try a piezo tweet with a second order crossover.Thanks for your advice, i haven't possibility to buy RS tweeterhere so I had the same idea as you - Motorola piezo. Which oneis your favorite ?And, what about adding a low-pass and zobel for beta12tl same as used in super12 ? This could be a solution to clarify the 10k region.> Good luck and please let us know

how it goes,> Cheers,> Jeff thanks, I will doO'Tor

Subject: Re: Beta 12LT in PiAlign'ed cabinet
Posted by Observator on Wed, 26 Sep 2001 14:10:37 GMT
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Hi Wayne,> PiAlign recommends a bass reflex cabinet of 2.4 cubic feet tuned to > 33.75Hz and having Q of 1.5. It recommends doing this using a 2.5" > diameter port that's 2.75" long, which is very close to a perfect > match - corresponding to Frd of 34.0Hz and Q of 1.56. I just verified this calculs and unfortunately this doesn't workfor me. In your whitepaper for the port calculation I read:Fre = 1/(2*pi)*(Ap/(Ve*Lc))^(1/2)If Dp=2.5 and Lp=2.75, then Lc= 4.87, if Dp=2.5 then Ap=pi*(Dp/2)^2 = 4.91,and then for Ve=2.4 i haveFre = 0.10312and not 33.75 Hz as you said.(Qe = 1.54 with no problem)What's wrong ?Thanks in advance,O'Tor

Subject: Re: Beta 12LT in PiAlign'ed cabinet
Posted by Wayne Parham on Fri, 28 Sep 2001 20:15:19 GMT
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You used 2.4 as as cabinet volume but you should have used 2.4 x 1728 to convert it to cubic inches. You must use the same terms throughout - If inches in one place then inches must be used everywhere. You can use feet if you wish, but then the port dimensions must be in feet for "Lc" and sq. feet for "Ap".