Subject: i think i've found the subwoofer for my jbl 4655's
Posted by replay on Wed, 13 Mar 2002 00:03:24 GMT
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this seems to be the only eminence branded offering with a low resonant frequency besides a pair of oem eminence which i have yet to plug inti pi-align. any comments?thanks,george

http://www.eminence.com/Media/Speakers/Kappa/KAPPApic.gif

Subject: Re: i think i've found the subwoofer for my jbl 4655's
Posted by replay on Wed, 13 Mar 2002 00:06:46 GMT
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the link only show's the photo. they are kappa 18's and they seem to be solid below 100hz. is that 20 hz peak a concern?cheers,george

Subject: Re: i think i've found the subwoofer for my jbl 4655's
Posted by Adam on Wed, 13 Mar 2002 00:19:00 GMT
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Kappa 18A? If you skimp on the box volume, you will be dissapointed in the deep bass response. However, I have two 18A's, 16 cuft ABC boxes. They play really deep and they sound surprisingly nice. They don't have a lot of mechanical power handling, though. I have bottomed them out on normal music with a 100 watt amplifier. But they do get extremely loud in the process!I can't call them my ideal choice for a home sub... But they're good.I'll give you both in their enclosures (covered of course) for $750 :DAdam

Subject: Re: i think i've found the subwoofer for my jbl 4655's
Posted by Wayne Parham on Wed, 13 Mar 2002 03:49:19 GMT
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They'll be fine in large vented boxes, 8-10 cu.ft. tuned to 30Hz or 35Hz. They'll be excursion limited at the bottom end, but you'll never notice that at home hifi levels.

Subject: Re: i think i've found the subwoofer for my jbl 4655's
Posted by Colin Fritzke on Wed, 13 Mar 2002 14:59:04 GMT
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George,Where are you planning on positioning your sub in relation to your JBL's? Are you planning to put it in the corner, or are you going with multiple subs placed under or beside the 4655's? If you must go with Eminence drivers, here's what I'd recommend:Eminence Kappa 15LFA (Adam is very familiar with these). 5.33 cubic feet tuned to 33 Hz will give a nice gradual roll-off with nice extension and relatively deep bass. Remember, this is a high-efficiency driver, so you can't expect sub-20Hz bass out of it.Eminence Delta 12LFAA 3.2 cubic foot box tuned to 38 Hz will give a pretty decent -3dB point of around 37 Hz. With room gain, you could probably expect good bass down into the low 20's range. Get two or more of these woofers and you'll have some excellent SPL.I seem to remember reading Wayne's comments somewhere saying that Pi-Align is NOT really intended for subwoofer design. I feel the same way. Because a true subwoofer is really only intended to cover the bottom octave or two, the rules for successful design are quite different than for a full-range system. Generally speaking, deep bass SPL is easier to obtain from lower efficiency, low-resonance, high-excursion drivers used in multiples and/or with LOTS of power. The LF and LFA drivers in each Eminence range are a good compromise between high-efficiency and low resonance. I think the Delta's and Kappa's are the most user-friendly. Good Luck!Colin

Subject: kappa 15lf vs kappa 18
Posted by replay on Wed, 13 Mar 2002 19:03:09 GMT
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thanks again for your help colin. here's my question. looking at the eminence published charts the kappa15lf has a big dip between 30-50hz. the kappa 18's response is smoother with a gradual

rise from 30-20hz. also the useable response is 25-500hz for the kappa 18 versus 35-3khz for the kappa 15lf. i'm green at this but to me it looks as if the kappa 18 is the better choice. if i'm missing something help me out please. i'm planning on placing the jbl 4655's on top of the subwoofers and they will be in corners. on top of all this i just received a sample eminence driver(oem) available at a surplus price. take a look at the spec's and see if this is workable as a sub.18" subwooferaccordian cloth surround3" kapton voice coil-4 layer95oz ceramic magnetRe(ohms) 7.84 Fs(hz) 22.74Le (mh) 1.88 Mms(g) 145.3Qm 10.30 Cms(mm/N) .3372Qe .310 Rms(Ns/m) 2.0156QT .300 Vas (L) 615.56Xmax(mm) 4.80 Sd (cm^2) 1140.09BL (Tm) 22.92 EBP 73.40EFF(%) 2.25 SPL (db) 95.50let me guess, these 18" drivers need a huge enclosure?thanks for all your help.cheers,george

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Subject: Re: kappa 15lf vs kappa 18
Posted by Adam on Wed, 13 Mar 2002 21:35:06 GMT
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Replay, I can't honestly say the Kappa 15LF would be good for subwoofer duty. The Q is fine, but the fs of 39 Hz makes it a difficult task. I have run mine in a variety of enclosures, the best being a 5 cuft one tuned to 40 Hz. The f3 was 37 Hz I believe. Good for PA use, but insufficient as a true subwoofer.The Kappa 18A will operate in even a 5 cuft ported box. You could also run it sealed. However, we're talking limited extension. Mine run in 16 cuft boxes tuned to something I do not remember. The f3 is about 25 Hz, though. You can definitely tell. You could probably get similar results in a 12 cuft ported box. I'll run some simulations for you if you want.Adam

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Subject: Re: i think i've found the subwoofer for my jbl 4655's
Posted by LuxmanLover on Wed, 13 Mar 2002 22:04:33 GMT
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Let me start by saying "I know nothing about Tube friendly loudspeakers". Actually the only thing I recall specifically is that you want a relatively low impedance to the amp from the driver. Anyway, I was running the 18" Kappa in a 300 L box to see if it would be suitable as a sub, while it didn't hit the 20's it did hit the low thirtys with decent efficiency, with 4 watts they hit 101 db which in my experience is lots for home use (I rarely go over 95 db, except at party time.....heheheheh) but

what caught my eye was the low impedence thru most of the frequency range with a max of 30 ohms at around 40 hertz, (below resonance it peaked at 85 ohms). I'd like to hear from the experts to see if any of my conclusions are correct.Kelly

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Subject: Re: kappa 15lf vs kappa 18
Posted by Colin Fritzke on Wed, 13 Mar 2002 22:10:59 GMT
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George,I wouldn't worry about the dip you see in the published response curve of the Kappa 15LF. Eminence does not typically measure their drivers in an appropriate enclosure under real world conditions as I'm sure Wayne can also attest. I can recall reading in more than one article (I can't remember the sources right now) that one shouldn't take the published response graph of ANY woofer very seriously in the range below 200 Hz. The reason being for this is that under the test conditions, more often than not there are response nulls caused by the measuring room and equipment itself. Its nearly impossible to get a truely accurate picture of a woofer's capability for deep bass response from a manufacturer's published response graph. All these graphs are really good for is to show what happens at the TOP of the woofer's useable range where it will generally start to "break up" and distort. You might remember that for a brief time, I was seriously considering using the Kappa 15LFA instead of a Delta 15 for a modified set of Theatre Four Pi's. I changed my mind when I saw that the Delta 15 has some nasty peaks in the frequency response above 1.6K. It really should be crossed over below 1K, which means it wouldn't mate well with the Eminence PSD2002.So yes, I stand by my recommendation for the Kappa 15LFA for subwoofer duty.Colin

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Subject: Re: Delta 15 vs Kappa 15LF
Posted by Wayne Parham on Wed, 13 Mar 2002 23:03:16 GMT
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Hi Colin!I'm sure it was just a "slip of the tongue," but I felt the need to point this out so the

the follwing:You might remember that for a brief time, I was seriously considering using the Kappa 15LF instead of a Delta 15 for a modified set of Theatre Four Pi's. I changed my mind when I saw that the Kappa 15LF has some nasty peaks in the frequency response above 1.6K. It really should

be crossed over below 1K, which means it wouldn't mate well with the Eminence PSD2002.Response curve of Eminence Delta 15Just thought I'd point that our, for clarity's sake.Wayne

Subject: Re: kappa 15lf vs kappa 18
Posted by Adam on Wed, 13 Mar 2002 23:39:25 GMT
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I've run the Kappa's with the PSD 2002's and they sound fine to me. I've run them in both standard and pi horn applications. I've used quite a few of these drivers, and from the standpoint of someone with plenty of experience with them, I really can't recommend them for subwoofer duty. They'll be alright, you can probably get flat response to 35 Hz, but there are better options IMO.Adam

Subject: Whoops!
Posted by Colin Fritzke on Thu, 14 Mar 2002 01:54:42 GMT
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Wayne,You're right... I DID mean to say the Kappa 15LFA was the driver with the nasty peaks in FR.Good eye!Colin

Subject: Re: kappa 15lf vs kappa 18
Posted by Colin Fritzke on Thu, 14 Mar 2002 02:05:12 GMT
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Ok, perhaps I was a little bit hard on the Kappa 15LFA's for two-way duty. I just chose NOT to

use it because I found a better alternative... the Kilomax 15 at a sweet deal :) I'm sure the Kappas do sound quite decent with the PSD2002.That said, I still think that the Kappa 15LFA WILL make a decent subwoofer. Not one with the deepest extension in the world, but a sub that will fit in a cabinet that is acceptable size for a livingroom. Like I said earlier... there WILL ALWAYS be a trade-off between efficiency and deep bass when it comes to subs. If high efficiency AND high SPL is the goal, prepare to have absolutely HUGE cabinets. Most people I know can't tolerate anything bigger than 5 cubic feet for a subwoofer unless its in a dedicated home theater room. If I was building a sub for myself to go with high-efficiency mains, I'd go with an Adire Audio Tempest or dual Shivas with a BIG amp. FWIW, that is just my opinion.Colin

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Subject: Re: kappa 15lf vs kappa 18
Posted by freddyi on Mon, 18 Mar 2002 18:47:03 GMT
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Hi George - without added source Z your driver would be 8.4cu.ft. QB3, f3~34Hz, fb~29Hz - could probably lop a bit of volume off and tune a bit lower - if it sounds good - have 95oz older Eminence kinda like Sigma with 3" voice coil and qts close - they have pretty good subjective definition in my 6.4cu.ft R-J style boxes but was using solid-state - wish could help on Eminence 15" - only have Delta Pro and discontinued 295-070 Dayton - freddy

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