Subject: JBL E155-4
Posted by Frode on Thu, 04 Oct 2001 06:44:43 GMT
View Forum Message <> Reply to Message

Hi Wayne!Do you know this driver? Is it possible to use it as a sub? I can get a good deal on one driver.RegardsFrode

Subject: Re: JBL E155-4
Posted by Wayne Parham on Thu, 04 Oct 2001 11:59:31 GMT
View Forum Message <> Reply to Message

It's a powerful woofer, but by today's standards I don't know that I would call it a sub. You can certainly tune it for subwoofer frequencies but I'd consider it a wide range midwoofer. If you want a good JBL subwoofer, try a 2235 or 2245.

Subject: Re: JBL E155-4
Posted by Harald on Thu, 04 Oct 2001 13:47:58 GMT
View Forum Message <> Reply to Message

Perhaps this is helpful:http://www.jblpro.com/pages/pub/components/eseries.pdf

Subject: Re: JBL E155-4
Posted by Frode on Thu, 04 Oct 2001 18:16:41 GMT
View Forum Message <> Reply to Message

Hello again!The 2235H is very interesting, but it seems to be difficult to get around here (Norway). I've seen some at Ebay, but many sellers don't want to ship outside USA. Besides, I guess the shipping would be almost the same as the driver. I also have to pay 24% tax on both driver and shipping. A new 2245H might turn out to be cheaper but the box would have to be larger than I like. To augment my 4Pi 2226H, how small could I build a box for the 2245H?TIAFrode

Subject: Re: JBL E155-4
Posted by Wayne_Parham on Thu, 04 Oct 2001 20:46:55 GMT
View Forum Message <> Reply to Message

The thing is, the smaller the box, the higher the cutoff. You can put a 2245 in a 4 cubic foot box but then it's not what I'd call a subwoofer, with f3 of 50Hz. Best to put it in an 8 - 10 cubic foot box tuned to 30Hz, which gives deep response, with f3 of 33Hz and f10 of 25Hz in a 10 cubic foot box. There's plenty of excurison, so that's not a limit through the entire passband. The thermal limit puts maximum output around 120dB at 1 meter. Naturally, excursion becomes a limit below fl, so high pass at 20Hz.

Subject: Re: JBL E155-4
Posted by Frode on Sat, 06 Oct 2001 14:21:59 GMT
View Forum Message <> Reply to Message

My question is, how can you tell if response curve "sounds good", and how do you tell if the distortion is low? Some drivers goes pretty low with a "normal" roll-off, while others need an alignment which gives some kind of extended shelf in the response to give low bass. Is everything "OK" as long as the curve is smooth, or should I look for something else?

Subject: Re: JBL E155-4
Posted by Wayne Parham on Sat, 06 Oct 2001 19:40:00 GMT
View Forum Message <> Reply to Message

You cannot tell what distortion is from a response curve. You will have to get these specifications from the manufacturer or measure them yourself. Driver motion becomes increasingly nonlinear as excursion is increased, so it is an important consideration. The amount of this imperfection is according to motor properties and suspension, so quality is important.

Subject: Re: JBL E155-4
Posted by Frode on Sun, 07 Oct 2001 07:03:20 GMT
View Forum Message <> Reply to Message

How are the JBL's in distortion?TIAFrode

Subject: Re: JBL E155-4
Posted by Wayne Parham on Sun, 07 Oct 2001 14:01:52 GMT
View Forum Message <> Reply to Message

Lowest distortion of any brand I've used. JBL is the leader in this regard, incorporating shorting rings that reduce distortion 50-100x (15-20dB) from 50Hz up.

Subject: Re: JBL E155-4
Posted by juanstein on Mon, 08 Oct 2001 13:59:27 GMT
View Forum Message <> Reply to Message

Hi Wayne,Another low frequency, very high quality sound reinforcement option, particularly for European DIYers, has always been Tannoy. Tannoy doesn't list their raw drivers on the website (www.tannoy.com), but does list the part numbers of drivers used in their sound reinforcement products. All of these drivers are available from a licensed Tannoy professional dealer or directly from Tannoy. Check the B475 or B950 Tannoy subwoofers, and compare against a JBL SR4718 and SR4719 for a quick guesstimate on tuning for the drivers in a comparably sized enclosure. The driver tuning seems to be a fair bit lower (maybe as much as 9-10 Hz), at the expense of some power handling. I don't know how the two would compare at the lower midrange and higher, but we are talking about low frequency augmentation speaker. Also, from the price of finished Tannoy subs, ~1100 US$, I suspect the prices may be more competitive than TAD. Just another option to consider. Disclaimer: I have not yet heard the Tannoy B475 or B950 subwoofers, but have heard the T12, I12, D900, D700, D500, Saturn 10, and Saturn 8. They are all killer. I purchased the T12 used for sound reinforcement work. So yes, I am blissfully biased. Cheers Wayne!P.S. Thank you for all the information you continue to provide for free. I am looking forward to seeing your final copy of the crossover paper. Someday, when I can afford to build up my shop tool set, I am going to be another speaker cutting fool. John