
Subject: correction of high freq(206e in a Jeriko)
Posted by [Kane](#) on Thu, 24 Feb 2005 20:04:06 GMT
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Just builded a pair of Jeriko with Fostex fe206e instead of 208. The high freq is too loud and i hope someone can give me advice of what to do. The rest of the sound is so nice, do i have to treat the highs with a filter or is there any stuffing/damping aviable that can cure this problem?Thank you!

Subject: Re: correction of high freq(206e in a Jeriko)
Posted by [akhilesh](#) on Fri, 25 Feb 2005 14:15:52 GMT
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HI Espen, YOu can try a step filter at around 700 HZ. Look at MArtin King's website to see how to make one. That should definitely tame the highs, and actually make the bass a little fuller!-akhilesh
Click on the variable baffle correction circuit

Subject: Re: correction of high freq(206e in a Jeriko)
Posted by [Martin](#) on Fri, 25 Feb 2005 14:17:35 GMT
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Since the high frequencies are coming from the front of the driver, and not out of the horn's mouth, you have two choices. You can raise the SPL of the lower frequency output from the horn, which probably means a redesign of the horn itself. Or you can try and tame the high frequency output of the driver, which in my opinion the most controlled and predictable method would be with a filter. The filter will allow a significant amount of adjustment to the driver's response that is completely reversible.Martin
Quarter Wavelength Loudspeaker Design

Subject: I would strongly recommend the same
Posted by [akhilesh](#) on Fri, 25 Feb 2005 18:29:26 GMT
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I tried the filter MArtin is talking about, and it certainly did tame the highs. Also, as Martin says, it is completely reversible, esp if you use alligator clips like I did -akhilesh

Subject: Re: correction of high freq(206e in a Jeriko)
Posted by [Kane](#) on Sat, 26 Feb 2005 13:45:07 GMT
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Thank you both for the advice. I have looked up the MK's BSC filter and i'm comfortable building this. Can i copy the hole filter at MK's website or do i have to change the values on the parts?. I dont have much knowledge about this kind of filter and my books doesn't get into it, so i feel a bit lost here. Is the BSC filter doing the same as the notch only boosting the lows instead of toning down the highs?I would be very happy for a suggestion on the circuit values if i can't copy the Martin Kings consept!!!!I will soon post some pictures of the Jerikos and some comments of the building and the changes i did to it.Thanx!

Subject: Re: correction of high freq(206e in a Jeriko)
Posted by [Martin](#) on Sat, 26 Feb 2005 14:02:50 GMT
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The values shown in my Project #5 are probably a good starting point. The circuit lowers the output of the driver above the baffle step frequency so you will sacrifice some SPL efficiency. The bass output is not changed, only the mids and highs are shelved down to balance with the speaker's natural bass roll-off. I have no idea what to expect for a bass response from the FE-206E in the Jericho horn design.If you look under my "General Speaker Related Articles" link there are a couple of write-ups on the circuit. A nice option is the variable circuit, you can buy the Ohmite rheostats on E-Bay at a significantly reduced price compared to what I paid for my first pair. I now have a stock pile of rheostats from E-Bay auctions for future designs.Martin
Quarter Wavelength Loudspeaker Design

Subject: Re: correction of high freq(206e in a Jeriko)
Posted by [Ron brady](#) on Mon, 28 Feb 2005 14:22:30 GMT
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Hi Kane and MartinI just wanted to add that I have built and tried martins variable bsc resistor scheme and must report that it works great. Instead of the ohmite resistor I am using the 0-16 ohm side of a standard 8ohm variable L-pad (\$5 each at Parts Express. I keep a pair of them with long leads and alligator clips as part of my audio tool box. They have become one of my favorite tools for speaker DIY. Thanks for the GREAT TIP MARTINRon Brady

Subject: Values you can start with.
Posted by [akhilesh](#) on Mon, 28 Feb 2005 14:25:21 GMT

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Hi Kane, Try 2.5 MH choke with a 3 ohm resistor in parallel. Make sure the DCR of the choke is 1 ohm or less. If it's more, then increase the resistor (that is in parallel with the choke). You can get this stuff at parts express. thanx-akhilesh

Subject: Re: correction of high freq(206e in a Jeriko)
Posted by [Kane](#) on Mon, 28 Feb 2005 18:18:52 GMT
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Hello Brady's the variable L-pad you use the same as an regular attenuator (volume control)? if so, I will easily collect some in my "forgotten by god" place on earth I live. I agree and think it must be a nice gadget to have. My option is to order by mail resistors with different values just to try out what's the best. It will cost about 2,5\$ each. Thanks Brady/Martin Kane

Subject: Re: Values you can start with.
Posted by [Kane](#) on Mon, 28 Feb 2005 18:36:11 GMT
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Hello Akhilesh! also got a tip from Martin on mail :
http://www.quarter-wave.com/Project05/BSC_Circuit.pdf This shows a circuit for 206/207. This is a circuit for a ml tl project and it will maybe be nice for me too if not the horn enclosure requires something else (maybe not)? There is so much nice info on that website but in these days I'm too busy to understand it. Thanks! Kane

Subject: Resistor values to get
Posted by [akhilesh](#) on Mon, 28 Feb 2005 20:38:16 GMT
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Hi, Just get a whole bunch of 1 ohm resistors, and then try setting them up in series or parallel.
-akhilesh

Subject: Re: Resistor values to get
Posted by [Kane](#) on Tue, 01 Mar 2005 07:26:12 GMT

Hehe!Ofcourse...Thanks sir!kane

Subject: Re: correction of high freq(206e in a Jeriko)
Posted by [DanTheMan](#) on Tue, 01 Mar 2005 19:12:04 GMT
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Those speakers take a long time to "break in." If their not broken in already I wouldn't do anything to them. I just got back from Japan and a guy there said to give them 6 months of regular use before changing anything. If they are broke in, then I would check your filtering options. MHO

Subject: Re: correction of high freq(206e in a Jeriko)
Posted by [Kane](#) on Tue, 01 Mar 2005 19:23:47 GMT
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Ok, maybe a good advice but i have problem with some kind of music as high female voices and "hard" strings. I think i may break down before the break in??? Beeing a total novice in this format(horn) i have read many places and been given the advice at this wonderful forum that the high freq will be dominating because of the construction. Anyway its useful to know the time taking to break in and you may have the right answer.ThanksKane

Subject: The BSC circuit is easiy reversible
Posted by [akhilesh](#) on Tue, 01 Mar 2005 22:00:44 GMT
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While they are "breaking in" you cna use the circuit, and then modify or remove comletely after the yare "broken in"-akhilesh
