
Subject: Re: L-200 Update again(moderately long)

Posted by [RBP](#) on Fri, 30 Mar 2001 08:04:33 GMT

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Plug one hole and work it that way. A big sponge will work. The reason for dual ports besides' area is to slow the airspeed down and make the ports "quiet" in terms of air noise. 10% mach is a reasonable airspeed...but anything over 15% mach gets noisy. It may not be an uncommon thing to get almost to the sealed state...you may listen without ducts to gain a reference. This is not Rocket science...just experimentation. You may need to try each setting for a couple of days to get a good fix on the total involvement of that setting...but if it is "wrong" ...you should know pretty quick...if it is close....it takes more time. Experimentation with the dampning material is also changes things. The dampning material tends to increase the enclosure volume. (!). If there is too much dampning material...you may never find the point. The theory of dampning material..(even though it takes up space) is that a given point...it slows the waves...(extends the time it takes) down so that the woofer thinks it is in a larger enclosure. There is a point where too much will start taking up air space and make the enclosure too small, but the optimum amount is also a determination on flux density of the voice coil..(Magnet provides dampning) the factor of the amplifier, and even the cables used inside the enclosure...We opened a can of worms on this one eh? Best of all...you are learning, and optimum results will be achieved eventually. It helps to have the speakers where you use them....but, most of this form of testing is usually done in an environment that is boundary free. Outdoors with the speakers on their back usually provides the cheapest anechoic type environment. You can hear what you are doing to the speaker..not what the speaker is doing to the room...It does take time.....When I did some work with JBL..I remember ports having 1/16th cut from them.....it simply takes experimentation...treat it like focusing a lens...if you are looking through fog...you may never achieve the desired results. In order to minimize false readings and observations...if outdoors is totally impractical...you can move the speaker to the center of the room...on it's back...(the most naturally minimized boundary area) and be able to hear better the results. I envision a loudspeaker designer out of you yet!!!!