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Posted by [jake](#) on Mon, 08 Nov 2004 11:53:47 GMT

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Most of the restoring force applied to the diaphragm in the Labsub is because of the air spring and not the spider / suspension of the drive unit, therefore turning one drive unit around should make a minimal difference to the linearity and therefore the distortion produced. Turning one drive unit around and running it reverse phase in a vented cabinet is a completely different matter as the greater restoring force comes from the drivers suspension which is often non linear especially at peak excursion. Turning both the drive units around and placing the heat sinks in the throat should keep the units cooler and therefore increase power handling also. Methods to reduce harmonic distortion in the horn include reducing the acoustic bandwidth of the horn by changing the throat chamber tuning and by reducing the compression ratio at the throat.

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