Subject: Re: JBL 2105
Posted by Wayne Parham on Wed, 10 Dec 2003 13:02:36 GMT
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Keep looking. Those 2105's are sweet.About phase plugs and throat shape - My design approach has been to keep the midrange horn simple and crossover where required without a difficult flare transition and phase plug in the midrange subsystem. The idea is that the added complexity isn't required considering you plan to crossover at some point to a tweeter.Phase plugs certainly help reduce path length related cancellations at higher frequencies. That's what they're used for. But I'm not sure you'll need one in a midrange horn like this. You definitely could design around one and make an excellent horn. But fabrication might be more difficult, and the extension you'll gain might have been easier to accomplish by different means.Modern midrange horns designed for use above 100Hz or 200Hz are generally expected to cover the vocal range, and run out of steam in the overtone region, between 1kHz and 2kHz. Many of them use flares very similar to yours, some with phase plugs and some without. So I think you're on the right track here, and you just have to decide what compromises and optimizations are in order for your particular goals.