

---

Subject: Re: 511B update #3 Major Improvement!  
Posted by [AstroSonic](#) on Sun, 29 Jun 2003 22:08:40 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

When you see those aluminum domes, you know you have got to be very careful! In fact, I worried that the wire leads might dent the diaphragms on closure. No need for worry, as they were pre-bent to move to the sides, away from the 'top' of the dome. The Dynamat is about 0.075 inches thick (just over 1/16") so there was 'plenty' of room. With respect to removing the back cover entirely, I considered that the enclosed volume loads the diaphragm much as an enclosure loads a cone driver. Running it open back might result in a lower Fs for the driver, but also lower power handling. Apart from the ambience added by the rear radiation, it might also result in a more open (improved) sound due to the lack of reflections and resonances. An open back baffle might not supply the optimum acoustic load to the diaphragm. I decided to not significantly alter the enclosed volume. Some of the better dome tweeters have a shaped cavity and damping material behind the dome. Perhaps this would be appropriate for compression drivers. Perhaps the forum compression driver experts could comment on the importance of the rear cavity volume with respect to diaphragm loading. If the open back configuration is Ok, then the diaphragm could be protected with a stiff, wire mesh cover (shaped over a baseball or similar object of appropriate size) with ears screwed to the back. Regards, AstroSonic