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The Burmester B100 Hybrid Speaker System—First Impressions

Burmester's new "statement" speaker, the B100, is a three-way system, in a double-layered enclosure that represents a significant advance over the speakers the company was marketing less than a decade ago, namely the B97, which charmed me not. But at this point, I would say it is the best speaker of its kind I have heard in years.

But there is a reason that this is a first impression and that I may later temper the accolade: The testing is not complete. Still ahead are further auditions with tubed electronics, with analog LPs, and with bi-amplification.

Still, I think I have its essential measure. And I can tell you that it is bound to give rise to debate.

There will not be, methinks, debate over its brilliant application of the Heil tweeter, which, in this cabinet, is doubled up and horn-loaded. It is, so say the folks at Burmester, capable of enormous (by tweeter standards) output levels. The Heil driver, first introduced in the early 1970s (and in the early days of this magazine), has had a checkered history, mainly because of the uses to which it was put and to the other speakers it was mated with. Some of us saw the potential then.

Recently, the Heil has shown up to several systems, including the ESS AMT 450 speaker, reviewed by Dr. Robert E. Greene in Issue 160. As far as I know at this point, however, no one else puts the tweeter to the same uses as Burmester. It is, sonically, clear enough that the speaker's designer, Oliver Nordenfels, and company owner, Dieter Burmester, have tailored the other drivers to make them continuous in character with the Heil. The other speakers are two midrange units, D'Appolito configured around the Heil, and two 11-inch side-firing woofers.



Concerning the Heil's application, Udo Besser at Burmester writes:

"This is a special version with a wider frequency range than usual; you may go as low as 1.8kHz with this version, but we cross it over at 2.5kHz. We have built a twin JET [the Heil] and horn-loaded it for even better sensitivity and efficiency. It is able to play very loud without compression.

"We aligned the acoustic centers of the midranges and tweeters in accord with the horn's depth. The Heil was manufactured by Elac in Germany exclusively for us, and we are the only ones who use that version."

The tweeter is burned in for two weeks (with pink noise and at maximum level) over their entire frequency range (1.8kHz to 40kHz) and computer-matched within a quarter dB.

The two midrange drivers were designed and manufactured in-house (thanks, Besser says, to the company's contract with Bugati for its car sound systems). Their cone consists of carbon and glass fiber; the magnet is ferrite. It goes further: The crossover is at the bottom of the cabinet to "minimize," Besser says, microphonic effects. The wiring is also high-grade silver. The crossover to the side-firing woofers is set at 180Hz. Sensitivity of the system is rated at 91dB (no reference level given, as yet).

And there's much much more technical data available.

Since those woofers face each other, there can be, and in our room there were, some weird effects. At first we found the system sounding as if out of phase, given the disparity between the woofers and the rest of the system. Gonzalez, in a bi-wire arrangement, inverted the polarity of the woofers, and the B100's snapped into focus with a degree of continuity and coherence unusual in a three-way hybrid system.⁶

We found that it was extremely difficult to detect discontinuities, although,

⁶ Even weirder was what happened when we mated the speaker to the new Joule Electra Destiny OTL amps, with their 300-watts-per-side conservative rating. The bass polarity had to be restored to its original setting. How a high-powered amp could change the polarity of the bass completely stumped us, and led me to believe that the woofers might have needed to be broken in to sound "right." Just guessing, you know.

HP'S WORKSHOP

after some listening, the speed, clarity, and wondrous reproduction of the top end of the spectrum did make the midrange and bass sound just a touch less alive and vivid. But when I say "just a touch," that's what I mean. Depending on the components you use with this system, you might not hear even this "touch."

I'm not sure I've ever heard highs better than these from the dual Heils. The Raven tweeters in the Nola Grand Reference IV sound slower and slightly recessive by comparison (a big surprise for me). If you take a recording like *Sounds Unheard Of*, which is a bedazzlement in terms of high-frequency transients and extended overtones, the effect is almost spooky. The distortion is extremely low, the sound remarkable pure, and the "aliveness" is something you simply have to hear if you are a student of the art.

For the most part, we used Burmester electronics, the full feature preamp, the 011, and the two 911 Mk III monoblocks. If you need a reference point for the Burmester solid-state sound, you might think Spectral, since the products of the two companies sound much alike.

The sound of the system, as I heard it, was almost shockingly neutral and uncolored, and hence revealing to an almost unprecedented degree for a three-way box system. It suggests

that its best use might be as a monitor for critical sonic applications. Some of you will find it cool—depending, of course, on the associated equipment. But I wonder if that is really so. Neutral to the point of coolness, I'd say, simply because there are so few colorations or euphonic sweetenings. For me, the system, thus far, has proved to be so transparent that everything is audible, and this, of course, is just what a reviewer wants and needs. Nowhere was its ability to expose colorations more notable than in the CD player evaluations I was conducting simultaneously.

The bass goes quite low. On the XRCD pressing of Holst's *Planets*, the organ pedal points on "Saturn" (as well as the upward glissando near the end of "Uranus") have the floor-shaking impact they ought to. It reproduces low levels and microdynamics with a delicacy lost on other box speakers of my acquaintance. The soundstage dimensions I'm still pondering. It clearly doesn't have the depth of field of bipolar radiating designs, and about the other dimensions of that soundfield, I will withhold comment until I have more experience with some classic analog recordings.

But so far, so good. □

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