

Liberty Audio B2B-100 Stereo Amplifier

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With the digital revolution lowering the cost of processing bits and bringing true high-resolution music to the masses on the relative cheap, very good and affordable vinyl rigs popping up left and right, affordable and impressive class-D digital amplifiers proliferating at a seemingly accelerating rate, and cutting-edge technology trickled down to lower-priced speakers, many of them sounding almost unbelievably good -- well, it's a good time to be an audiophile. It's also getting easier and easier to build a downright fantastic-sounding, no-apologies-needed audio system for a fraction of what it would have cost not that long ago. And costs are being lowered from the other side as well: increasingly, manufacturers are selling products directly to customers with generous demo and return policies, virtually halving a product's final price. Unfortunately, in my opinion, this last trend is a direct cause -- and effect -- of the decrease in the number of good high-end retailers.

Then there's Peter B. Noerbaek of the company that bears his initials, PBN Audio -- one of the few manufacturers I know of who's decided to play both sides of the retail fence. PBN produces some of the best audio components around, but in an effort to bring big doses of his top models to a larger audience, Noerbaek is going direct with his Liberty Audio line. If reviews of the first Liberty model, the B2B-1 phono preamplifier, are any indication of what's to come, I wouldn't bet against him. The B2B-100 (\$2499 USD) is the first Liberty power amplifier, and if you've read any reviews of PBN's Sierra Denali monoblocks or any of their Olympia amplifiers, you'll understand my excitement in getting to hear the B2B-100 in my own system. Not to mention that I found PBN's ScanSpeak B741 kit speakers to sound pretty awesome when I reviewed them here last year.

Design

The Liberty B2B-100 is a fairly traditional amplifier -- a class-A/B design with MOSFET output devices -- but in an interesting twist, it can operate in both Low and High Bias modes. What I've heard from class-A-biased amplifiers -- natural, sweet, spatially adept sound -- has made me a fan, but I haven't had any in my system, and am not sure I'd want to incur the electric surcharge for using such power-gobbling devices. So the B2B-100 seemed an interesting compromise, assuming its High Bias mode could embody some of those qualities. The B2B-100 sounded very good in Low Bias mode, to which I listened happily for several days before realizing there was another gear to be had. At the flip of a switch I became, as chef Emeril Legasse puts it, happy happy.

The B2B-100 is also a pretty conventional-looking amplifier, which is just fine with me. I view it as ruggedly handsome. Some of the "creative" casework coming out these days can be downright beautiful -- some of it even looks like art -- but some of it makes me want to barf, and it adds a ton of cost to the amplifier. I'll take the traditional look and pocket the difference, thanks. This traditional black box measures 19"W x 5.75"H x 16"D -- it weighs a chunky 50 pounds and feels all of that. The chassis is all aluminum, to aid in heat dissipation, and the amp is made in the good ol' US of A. There's nothing on the front panel but an on/off rocker switch -- it operates with a nice, reassuring thunk -- and a small, blue power-indicator light that neatly dots the second i in the Liberty Audio logo. The heatsinks along the side are nicely rounded so as not to jab when you pick the thing up, and there are even handles on the rear panel.

The rest of the rear panel is populated by pairs of single-ended RCA and balanced XLR inputs, an IEC connector, left/right output terminals, and three toggle switches: Mono/Stereo, Hi/Low Bias, and RCA/Bal. The B2B-100 is said to be a dual-mono design from its transformer secondaries on, but while in monoblock mode the amplifier is fully balanced from input to output, in stereo mode it's balanced only up to the output stage. I used single-ended inputs only. The only thing I'd criticize here are the speaker terminals, which have plastic knobs that would seem more at home on a mass-market A/V receiver than a \$2499 amplifier. While looking low-rent, their slippery plastic knobs are also a little harder to tighten down than knurled metal screws, and I'm not sure I'd want to subject them to pliers.

The B2B-100's claimed power output is 110Wpc into 8 ohms or 200Wpc into 4 ohms; in monoblock mode, these rise, respectively, to a formidable 350W and 600W. The total harmonic distortion is specified as <0.1%, and the input impedance is 75k ohms single-ended or 3.6k ohms balanced. Inside, the circuit board is in three sections: one each for the left and right gain stages and the power-supply circuitry, in an effort to minimize noise. The B2B-100 employs a large 800VA toroidal transformer; its power consumption at idle is 100W in Low Bias mode or 200W in High Bias, with a maximum draw of 700W. Speaking of that transformer, if you're curious about the differences between Peter Noerbaek's Liberty amplifier designs and his pricier PBN Olympia models, this is one of the big ones. Even the Mini-Olympia amp has a monster 1500VA transformer, and a JFET front end in lieu of MOSFETs, as well as other more expensive bits. But let's be fair -- at \$8500, the Mini-Olympia costs more than three times the price of the B2B-100. Still, my bet is that you're getting a lot more than 30% of the Mini-Olympia's performance (and more than 30% of Noerbaek's brainpower).

During its time with me, the review sample of the Liberty B2B-100 operated flawlessly, and even in High Bias mode it ran pretty warm -- but never too hot to touch, no matter how hard I pushed it. I noticed very little change (if any) in the sound as I ran the amplifier in, but I'm not sure how many hours had already been put on the review sample before its arrival here.

Sound

I'm occasionally sent review samples of components that sound very neutral and relatively free of flaws, but that, for whatever reason, fail to fill my emotional sails. Then I'm sent other stuff that I really enjoy and that brings a smile to my face, but that I know is doing something to the sound. What I hear may be attractive, even addictive, but I know it's not entirely accurate. Then there are those special products that manage to blur these lines. Their sound seems inherently almost flawless and neutral, while at the same time drawing me into the performance in a way that tends to send my lower jaw floorward again and again. That, in a nutshell, is what the Liberty B2B-100 did for me during its time in my system.

This amplifier will probably not be for everyone. If your cup of tea is a more traditional tube amp, with a relatively romantic sound lavishly rich in tonal colors, the B2B-100 will almost certainly not be for you -- unless, perhaps, it's preceded by a tube preamp with just those qualities (not a bad idea, by the way). For almost everyone else, the Liberty is an amplifier to reckon with.

It did everything extremely well. Clean, tight, tuneful bass? Check. Extended, clean, airy highs? Check. Micro- and macrodynamics aplenty, with no sense of strain or restraint? Check and check. Precise imaging throughout a voluminous soundstage? Check. Silent backdrops that let every element pop, clearly in its own space? Check. Speed and pace that always make music sound real and on point? Check. But in addition to all this good stuff was something that was, in my opinion, the B2B-100's calling card, and probably a combination of the aforementioned strengths: its ability to completely reveal the natural sound space of a recording. The clearness of space between entities, and the ability of each to naturally and definitively occupy its own space in three dimensions, was exceptional. It was as if a layer of grime I'd never known was there had been stripped away, letting me more clearly and effortlessly "see" each player in his or her space. I fear this quality may be lost on those who tend to be more concerned with the dynamic and tonal portrayals of musicians and their instruments. But among the "audiophile" types, who listen and yearn for this type of information, the B2B-100 was a juggernaut, especially for a purely solid-state design. It trod heavily in the spatial realm that, at least in part, drives tube-o-philes to ditch the sand and hit the bottles.

As I mentioned, I very happily spent my first several hours listening to the B2B-100 in Low Bias mode, and thought it a very, very good, neutral-sounding, quiet, and powerful amplifier with impressive imaging and soundstaging. But then I checked the connections, and realized that there was a High Bias mode as well. I flipped the switch.

It's not that the B2B-100's character was transformed. All of its tonal and dynamic qualities, and its transparency, were very similar to how they sounded in Low Bias. But the sound overall was now subtly smoother, and dimensions that had before not been apparent now emerged into their various spaces more clearly and believably. Think atmosphere. Think tubes. Think solid-state class-A. The B2B-100 was now more of a living, breathing, organic-sounding beast. For example, when I put on the title track of Donald Fagen's *Morph the Cat* (CD, Reprise 49975) to check out the Liberty's bass capabilities, I heard something very unexpected. I've used this disc for lots of equipment reviews, and have heard it at audio shows and such, and it's always sounded like a very well-recorded studio album -- i.e., all the elements sound very clean and precise. But compared to live recordings, it sounds as if it was recorded in an acoustically damped studio -- which it was. With the B2B-100, for the first time I heard a more dimensional space, complete with some reverb trails that before had been greatly diminished, if not inaudible. This was a breath of fresh air. And yes, the bass was very well controlled and powerful, and as good as I've heard in my room from that track.

Given what happened with "Morph the Cat," I was champing at the bit to hear what the B2B-100 could do with an album that was recorded live. I hadn't listened to Eric Clapton's *Unplugged* (CD, Reprise 45024) in a long while; I've always thought it a decent recording, if nothing special by audiophile standards. The B2B-100 didn't completely transform *Unplugged*, but it did breathe new life into it and make it much more fun to listen to. The musicians' placements on the stage were so much clearer and easier to identify than I remembered, and I felt I was experiencing, much more completely and believably, a live performance taking place in front of me. For example, in "Running on Faith," the backing vocals floated more freely at the rear of the stage between Chuck Leavell's piano and Clapton's voice, and the piano wrapped itself all around the area behind the left speaker, sounding completely uninhibited. In "Signe," the woodblock at the rear of the stage went farther past my front wall, and gained in height. But the guitar, while very clear and clean, sounded just a tad lighter, and revealed more about how the strings were being played and less of the tone being generated by them. Likewise, the cymbals, while also sounding clear and undistorted, favored drummer Steve Ferrone's stick dynamics over the instruments' metallic tone. I didn't notice any of this until I did some direct comparisons with my amp -- the B2B-100 didn't sound thin on its own, but did sound a little thinner in direct comparisons with other, meatier-sounding amps.

I also played several classical CDs I'm very familiar with. With great consistency -- and not altogether unexpectedly, given what I'd already heard -- the B2B-100 excelled at delineating layers of performers, as well as the size and scope of recording venues. It was as if I was now able to clearly peer straight through the stage from front to back, and in and around all the performers, with no haze or murk to obscure my view. Details at the extreme reaches of venues were much more easily discerned in their proper places, instead of being homogenized into a single sonic blob in a relatively murky space. A visual analogy: Think of having an eye exam after ten years of using the same prescription lenses in your glasses. The optometrist determines that your

eyes have worsened significantly over that time, and gives you a new prescription to restore your 20/20 vision. This is what the B2B-100 did brilliantly. But again, and consistent with what I heard in Clapton's Unplugged, the Liberty's clarity and transparency were accompanied by slightly less density to the individual elements within the performance.

The Liberty's otherworldly clarity was so thoroughly enjoyable and revelatory with so many recordings I'm very familiar with that it was hard to isolate any significant detriments. But there was one thing: This is not an amplifier that will polish a turd or put lipstick on a pig. Nor will it immerse you in a nice warm bath of even-order distortion to help you blissfully forget or embellish the real world. At heart, for better or worse, the Liberty was a truth teller that made me pay attention to what's going on in my favorite recordings. Relative to other amplifiers I've had here, the B2B-100 very effectively communicated how a cello was played and where it was played, with good tone and all the micronuances I could ever wish for. But as mentioned above, it didn't dive quite as deep into the instrument's woody guts. And while cymbals were absolutely pristinely reproduced, with no hint of hash or other unnatural artifacts, and were appropriately balanced in the mix, I found the B2B-100 to be not quite as revealing of the deeper tonal properties and weight that, say, a larger ride cymbal can produce. On their own, and in the context of all the B2B-100's other considerable abilities and strengths, these are things I didn't miss or even notice -- but they became more apparent in direct comparisons. Then again, those other amplifiers can't come close to producing the Liberty's spatial magic.

Comparisons

Compared to my longtime reference amplifier, the McCormack DNA 0.5 Rev.A (around \$2500 with upgrades, discontinued), the Liberty B2B-100 sounded significantly clearer and a little leaner. The DNA 0.5 created a smaller, more intimate atmosphere that put a little more meat on the bones of individual sounds, but at the price of less information about the recording venue or the placement of images on the soundstage. The B2B-100, while not sounding thin on its own, did sound a bit thinner and less weighty in comparison -- but I was able to hear the recording atmosphere, and everything in it, more clearly and effortlessly. For my tastes, it was a tradeoff that favored the Liberty amp by a good margin.

The amp that most reminded me of the Liberty B2B-100, and by a wide margin, was Rogue Audio's Medusa (\$3995), which I reviewed last year. The Medusa is an imaging, soundstaging, and dimensional standout, and no other amp I've had here has come close to rivaling it in those regards. (Note: I haven't had in-house a fully tubed or pure class-A amplifier.) Without having the Rogue and Liberty side by side I can't say for sure, but aural memory brings up no significant sonic differences between the two. That's pretty amazing, given their extremely different architectures -- the Liberty being a fairly conventional class-A/B analog design, the Rogue a class-D amp with a tubed input stage. For whatever reason, I found that the Liberty changed character and flavor with changes in interconnects; the Rogue is relatively immune to such influences, at least in my system. But the Medusa counters by giving you the ability to swap out input tubes to influence its sonic character in pretty much whatever direction you desire. Then again, tubes degrade over time and need to be replaced -- then again, as they're only input tubes, that probably won't be for a good long while. The biggest difference between the two might very well be the price -- the direct-sold Liberty amp has a \$1496 advantage. But you get no dealer support with the B2B-100. Take your pick.

Conclusions

From what I've read of the Liberty Audio B2B-1 phono preamp, and from what I heard when I reviewed PBN's ScanSpeak B741 loudspeakers last year, I'm starting to realize that there may be a "house sound" to Peter Noerbaek's designs that favors strict accuracy and neutrality over fluff. They also seem to excel at things like imaging, soundstaging, and the portrayal of the more dimensional aspects of reproduced sound that, for whatever reason, many other audio components tend to obscure or gloss over. That was most certainly my experience.

On the flip side, with both the ScanSpeak B741s and the Liberty B2B-100 I noticed a slight lack of lower-midrange presence that could also be part of this house sound -- I haven't noticed it as much in components from other manufacturers/designers, including those in my own reference system. I know that some manufacturers boost this range to get a more appealing sound, and maybe Noerbaek is just being more honest (I suspect his products measure quite flat). Either way, I have no doubt the B2B-100 will make waves in the audiophile world. The qualities of sound and build and the low price make the B2B-100 an outstanding value. The Liberty B2B-100 is a great example of why it's a great time to be an audiophile.

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