

productreview



Bryston 4B-SST Power Amplifier

There was a time when I wanted a Siberian tiger as a pet. Then I wanted a black pet jaguar - the car too. More recently after watching BBC's stunning Planet Earth, the snow leopard got me. Choosing a power amplifier may not sound anything like choosing a favourite feline, but there are some interesting similarities.

When evaluating the Bryston 4B-SST, the first thing that came to mind was power. A bit shallow, I'll be the first to admit, but if power isn't the right place to start for a power amp then where else? In fact, the 4B-SST has quite a bit to boast about in this department with its two 300-watt channels into 8-ohm loads, or 500 watts when used with 4-ohm speakers. The 4B-SST features a dual mono design, but the channels can be bridged into monoblock operation of 900 watts at 8 ohms, for those hungry-for-more listeners. A bit of a beast, as it suggests, may I say.

It turns out that the 4B-SST is about as timeless as the love for a great cat. Bryston has produced the 4-series power amplifiers for 30 years now. The SST version is the latest manifestation of the 4B-ST that sold more than 30,000 units. Something tells me that the design must have some beautiful virtues to last this long.

Each channel of the dual-mono 4B-SST

now has independent toroidal power supplies and multiple filter capacitors. The results are a power output increase of 20 percent, a soundstage that is more precise and focused, an improved high frequency response, and reduced overall losses in the power supplies. Also impressive is this amp's Quad-Complementary output stage: Bryston arranges NPN and PNP transistors such that the musical signal is transmitted as one wave rather than as two half-waves, which would be the case in a simpler transistor arrangement. Bryston claims that this arrangement results in better linearity and reduced higher harmonic distortion. In short, it produces a perfectly symmetrical output signal.

Other design highlights include a fully discrete analog signal circuitry to avoid any compromises, phase shift and non-linearity inherent from using integrated circuits; an innovative gain stage topology which results in a very low noise floor; as well as the use of lower-impedance pathways in the amplifier. All of these design techniques translate into a reduction of overall distortion. Bryston has analyzed its intermodulation distortion to be less than 10 parts per million (below 0.0009%).

The 4B-SST power amplifier weighs 22 kg (50 lbs). Not the heaviest of beasts but not the lightest either. My evaluation amplifier came with a 19-inch silver front

panel with handles. A 17-inch front panel is also available; both sizes come in a choice of silver or black. The amplifier's deep, all-metal body case makes a sharp and sturdy impression, much like a leopard in the snow. The front panel contains a touch-sensitive membrane on/off switch and a couple of LEDs, like the sharp eyes of a nocturnal cat. The back of the amplifier provides a pair of single-ended RCA inputs and a pair of balanced XLR inputs; two switches allow between single-ended and balanced operation for each channel. Also in the back is a switch that allows two-channel or bridged-mono mode selection and a gain switch between 29 dB and 23 dB also for each channel. All of these connectors, look and feel very solid. A removable power cord comes supplied with the amplifier.

Honourable mention goes to the provided informative user manual and the Bryston website which hosts in-depth literature on the product. Also worth mentioning and emphasizing is Bryston's 20-year transferable warranty - the manufacturer's guarantee that your Bryston amplifier will last that long even if your music doesn't.

So the 4B-SST scores in all the right places on paper. That does mean it translated to a straight-forward hazard-free audition session. I ended up spending many hours listening for its temperaments

and its strengths. By the end, I surveyed many music tracks and finally discovered the true nature of this beast.

First, I compared the unit with an almost-all-Exposure system: 3010 CD player, Classic XXVIII pre-amplifier and Classic XXVIII dual mono power amplifier, and a pair of ProAc Studio 130 speakers. Of course I then substituted the Exposure power amp with the 4B-SST. I knew that the quasi-all-Exposure was a great combination with expected synergy. But the Bryston 4B-SST was hardly outdone.

I expected the 4B-SST to fare well with heavy rock and pretty much anything that's played through microphones and feedback loops because of its power capability. When I played Eagle's Hell Freezes Over, I was satisfied with what I got: solid bass, clear mid to high range...no problem.

Then I played the entire Bill Evans Trio album *Exploration*, twice, because it sounded great - smooth and aloof like a cat behaves, and how I like my jazz. The 4B-SST had a potent lower register that made for some exciting bass solo lines. At the same time it complemented the upper ranges very well. The weight was just right - strong enough that the higher register wasn't flaking snow in the air, but mild enough to not give me a headache from too much passion.

Classical tracks followed and so did my critical ears when I listened to Hough and Rachmaninoff. Again, the music flowed fine, but I began to think that I was in need of a wee bit more spark and I thought maybe this cat was too reluctant to show its claws. The orchestra played on the light side in comparison to the piano and the higher ranges tended to be bright. Though, I enjoyed the soundstage that I was hearing: Violins from the left, cellos on the right, piano centered and winds from the back. The depth of the image was clearly evident.

Still, I needed to find out if I could draw that extra bit of affinity from this cat, so a few days later I inserted the 4B-SST into my second system: PS Audio Lambda CD Drive, Conrad-Johnson Premier Ten tube pre-amplifier, and a pair of Martin-Logan Sequel II speakers.

I began by playing Barber's Adagio for Strings, RCA Victor (09026-68758-2),

Gold Seal, which contains eight tracks of the same music. The thing I love about this CD, other than that the piece is never too much to be played eight times in a row, is that it gives me an idea of how a system sounds with different sound production. It's a neat little disc to have, if melancholic music doesn't bring back too many difficult memories (like losing a cat).

The message of this CD was clear: ensemble strings were not as luscious and sonorous as they could be, but tubes, open or closed, were windpipes direct from heaven above. The lone vocal track performed a cappella - the way I always prefer it - was angelic. And that wasn't a fluke, because I then played another audition favourite of mine, Harmonia Mundi's 2005 SACD of Rachmaninoff's All-Night Vigil (807384), and this cat was definitely a vocalist. Not only did I get flavourful layering, but also an evident dimension of depth and width.

Poulenc Sacred Music (Collegium CSCD506) was another CD that I played repeatedly on the 4B-SST, particularly the Christmas tracks, because there was something haunting about them: an enigmatic mood lingered like a wounded songbird, or just eeriness because snow was falling at the wrong time of year. The experience was ghastly beautiful nonetheless.

Returning to Hough and Rachmaninoff on this second system, I decided to give piano-and-orchestra another go, this time choosing Perahia and Mozart, because if I'd learned anything at all, it's that this leopard is cautious about leaving a footprint in the snow. Mutiny of epic proportions is probably overkill for its talents.

Not that it lacks the power to, but if it can make the kill without making a scene, that's how it would prefer to operate. So if among your collection you find perfection like Perahia's fluency or Rubinstein's touch you are very near paradise, because you wouldn't have expected a piano sounding this good with the 4B-SST.

Rubinstein's 1961 recording of Chopin's second piano concerto, now part of RCA's Rubinstein Collection, was just what I needed to tame this cat. The piano line was an exquisite birdsong - after all, this cat enjoys a bit of bird chasing too - later joined by the bassoon into a courtship of

tender dances - haunting stuff indeed. I knew now that the 4B-SST is a magnifier of perfection.

Thereafter it seemed that whatever I threw at the cat was handled with class and ease. And then I realized that this whole time it wasn't so much that I was taming the cat. The cat was taming me. I wanted to see it devour everything and anything, the way a beast supposedly would, mean and all, and call that power. Now, come to think of it, there's something vulgar about that. This cat: give it gold, it returns manifolds.

So I gave it Mozart's flute concertos played by Galway (RCA 60450-2-RC) because vocal birds are a favourite. Sure enough, the tune played pure gold.

The Bryston 4B-SST will beyond doubt satisfy most listeners. Why should you have to choose another cat? If you are so beast-thirsty that the 4B-SST clips your music, then you should upsize to the next model up in the line. That's if you really need your cat to chase elephants and battle bears. My 4B-SST amp? Apprenticing alchemy.



specifications

Manufacturer:

Bryston www.bryston.ca

Price: \$4095 CAD

Bryston 4B-SST

- Power Output: 300W per channel (8 ohms), 500W (4 ohms)
- Gain Select and sensitivity: 29dB - 1.8Vin = 300W @ 8 Ohms - (1V Position)
- Bandwidth: <1 Hz to over 100 kHz
- THD + noise: < 0.005% 20Hz to 20kHz at 300 watts into 8ohms, < 0.007% 20Hz to 20kHz at 500 watts into 4 ohms
- Dimensions (LxWxH): 483 mm x 438 mm x 133 mm (19" x 17.25" x 5.25")
- Weight: 22 kg (50 lbs)