



HIFI-TEST

Test: Bryston 7B3 | Endstufe

Emotion statt Präzision?

von JÖRG DAMES | 14. JULI 2017

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HIFI TEST

Test: Bryston 7B3 Power Amplifier

EMOTION INSTEAD OF PRECISION?



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1 Emotion Instead of Precision

Power amplifiers are among the components that I especially like to test. On the one hand I like the frequently simplified design, on the other the “muscular” circuit design, respectively the power to move a lot of energy as needed. But it should also not be forgotten that power amplifiers have the significant task to resolve highly diverse loads while not being influenced by their electrical feedbacks.

Loudspeakers are motors and generators at the same time, and the demands which they place on their energy suppliers are as little consistent as loudspeakers themselves. As simple as the task of power amplifiers to amplify the input signal to a fixed dB value might appear to be, so demanding is the task to build a pleasant sounding, preferably universally usable power package, that additionally is absolutely reliable (starting with the inrush current) and long-lasting. An electronic engineer friend and developer always says “One must be able to build large power amplifiers.”



A competency one can without a doubt take for granted for a manufacturer with long warranty times (20 years), and an even longer history, since the first Bryston power amplifier came into existence in 1973. According to legend especially the “indestructible” power amplifiers, also

frequently utilized in the domain of studios, added/add to the significant reputation of Bryston. (Distribution for Germany: www.avitech.at)

Apropos history which actually goes still further back because Tony Bower, Stan Rybb, and John Stoneborough are responsible for the 1962 founding, as well as for the name of the company with their last names, but they had nothing to do with HiFi, but rather with blood analysis equipment. The switch to audio equipment was only introduced six years later when the NASA engineer John Russell purchased Bryston and moved from the USA to Canada. In the course of a relaunch the first power amplifier which saw the light of day, at first as a prototype, in 1973, was developed by his son Chris. A sound studio in Toronto was among the first customers of the dual mono

built 2 x 100 Watt power amplifier “Pro 3” – and although Bryston at first generated an excellent reputation in the professional market place, today the HiFi market is the more important mainstay of the Canadians.

Moreover the new power amplifier generation “Cube”, introduced to the German market last year, is available in a studio or home version, including an additional input suppression in the Pro version, likewise technically equivalent, and at-home users do not have to dispense with the optional front panel distinctive handles.



The Bryston 7B3 power amplifiers to be tested are the second largest mono amps in the Bryston product hierarchy. The “7s” are situated one level above the popular “4” Stereo amplifier (actually 4B3), to which I was able to give a short listen to, and which would also be worth its own separate test. Since a short time ago my colleague

Martin Merkens is the proud owner of a Bryston “4” amplifier, so maybe we’ll shift something like that into our busy planning.

The Bryston 4B3 power amp already delivers 2 x 300 Watts into 8 ohms, the 7B3 mono amps are rated at 600 Watts into 8 ohms. An 850 VA toroidal transformer serves as a power source which, according to Bryston, can supply higher power surges. An especially massive core, and as a consequence thereof an ultra-strong magnetic field enable the stemming of very high peak currents. And last but not least the filter capacitors located next to the transformer, do not need additional power from the outlet on the wall, which assures voltage steady operation, and thereby a more stable sonic image.

But the predecessors were also not lacking in life and vigor – the technical differences between the “squared” and “cubed” models relate primarily to sensitive subject areas. Hence the construction of the input stage is based on a new patented design by Dr. Alexandru Salomie, a long-time Bryston developer. The input buffers shine through once again by raised linearity/stability, as well as by lowered total harmonic distortion and noise values according to Bryston, additionally they are extremely resistant to

contamination of the input signals due to RF interference or emission of other audio components. A further decisive evolution step is certainly also the raised bandwidth of the entire – incidentally completely balanced – amplification circuitry, which however with 100 kHz is not necessarily extravagantly high: Bryston considers still higher bandwidths soundwise counterproductive in view of RF-susceptibility.

In order to reach a bit ahead in reference to what we can expect in the listening test, especially the lack of distortion of the Bryston 7B3 amplifiers, according to my evaluation, transparency and subtleness are soundwise significantly noticeable, and in reference to the topic “Airiness” I believe I can hear likewise welcome differences in comparison to older Bryston amps.



By the way the Class AB output stages of the Bryston 7B3 amplifiers remain unchanged from the preceding model: Now as before 16 bipolar output transistors perform their duty, equally divided into different polarities, for their respective half waves. With a load capacity of 230 Watt/16 Amps for each semiconductor there is also ample headroom offered here.

Before one can use this headroom, for notorious instruction manual ignorers, last but not least, a few pointers for the turn-on procedure: The rear rocker switch (Master Circuit Breaker) definitely does not serve as a “hard” On/Off switch, it is a magnet based circuit breaker, whereby fortunately one is saved from having to open the 7B3 amp and changing a conventional fuse. Therefore one first “turns on” the Master Circuit Breaker, and afterwards one connects the line cord – if one reverses this sequence the Bryston 7B3, even after pressing the front side button (the actual “hard” On/Off), will remain in a deep sleep, which may cause uninformed new owners to unnecessarily wrinkle their brow in worry. Oh yes, and even the clattering for a few seconds belongs to the normal waking up ritual of the Bryston 7B3...

2 Bryston 7B3: Soundcheck and Comparisons

Let's start the testing by mentioning a few rather specific features:



To begin with the Bryston 7B3 amp has been subjected to 1000 hours of break-in time, during this period the amp had to suffer and endure a bumpy mountainous and valley ride. Freshly unpacked out of the box the amp acts quite normally (no amp sounds optimal right out of the box), but after a few hundred hours (!) of break-in playing

phases occur where I ask myself “Where has the bass suddenly gone?”, causing me intermittently to have my doubts about the Canadians. The same occurred to a few American owners who judged their 7B3 monos as somewhat thin and sterile, as I read by chance. Something they are definitely not after their pupation phase, which may take 1500 to 2000 hours, since resolution and musicality are subtly continuously being added.

In their hopefully long lives as butterflies the 7B3s likewise distinguish themselves from the usual. The 7B3 power amplifier delivers the highest detailed, the highest resolved sonic image that I have ever encountered in a power amplifier of any complexion and price class, and I mean “genuine” resolution, not the hard grating, the silvery high-frequency range or an exaggerated attack, with which so many supposedly highly resolving components pretend to deliver precision via raised stress levels. No, genuine resolution never hurts, rather the opposite, an exceptional, artifact-free, finely detailed sonic image appears more delicate, less rough/porous, more stress-free, and therefore more enjoyable over time. I suppose that among others the extremely low distortion values of the 7B3 are responsible for this highly welcome characteristic, and because of that even the most subtle musical constituent is communicated in unadulterated form.

Those who would like to hear something like this in less expensive components should listen to the Norma Revo IPA-140 power amplifier or the smaller brother the Norma Audio HS-IPA1. The latter I have not had in my rack yet, but my colleague Michael Bruß, suggests the same thing in his test report.

Back to the Brystons, whose special resolution competency does not show itself by letting details in sensational mass and conciseness crackle on one's eardrum, on the contrary the Bryston 7B3 after the first measures as if in doubt provides rather a hint of understatement, its special talents come especially sustainably into play during relaxed music listening. That is the way it is still today, the 7B3 amps have played at my home for over eight months, and they will continue their stay here, so that ultimately I can still be unabatedly astonished with titles I have not heard for a long time, for instance when cymbals shimmer distortion free and with perfect sustain, so that their authenticity stops me in my tracks, and I almost want to get a stopwatch in order to check if the perceived fading can indeed be measured in actual seconds.

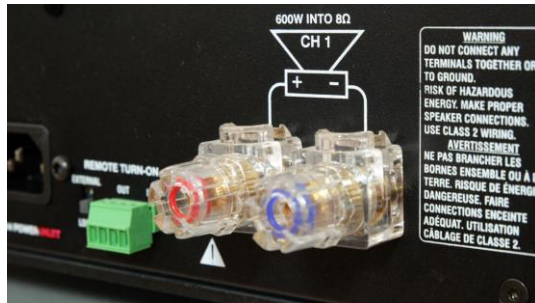


Incidentally all of this is not only enjoyable with high quality recordings, on the contrary, while I revise these lines once again I listen in between to *Man or Astroman* which in the album *Eeviac* unfortunately acquired a thin garage sound – yes, audiophile sound is truly different.

However it doesn't annoy me, naturally not just this alone, but specifically because of the Bryston 7B3s: the accurate pace of my audio equipment chain Funk MTX, Bryston 7B3, and Sehring 902 preserves with its subtlety, as well as the absence of artificial corners and edges, the soul of the music; I have never heard *Eeviac* more appealingly. Another musical example: On *Wovenhands* album *Blush Music* (listen to it on Amazon) the Bryston 7B3s reproduce high frequency based percussion components like tambourine or rattle absolutely bit by bit or granule by granule, but despite that the dreaded word among music lovers "analytic" is miles away at a safe distance, the transients at no time appear to be unnaturally sharp-edged, but instead elaborate and solid: "Unequivocally differentiated, unequivocally organic" appears to be the guideline of the Canadians.

Naturally the high accuracy of the Bryston 7B3 duo in the first place also results that certain details cross over the threshold of perception. That happens for example with *Isis* Post-Masterwork *Oceanic* (Listen to it on Amazon) when in the midst of a thickly distorted electronic guitar inferno a

previously always unheard, lonely flanger effect breaks through the wall of sound. Awesome.



The listener, who is attentive to the finest signal details, also does not lose anything time-wise: The topic fine dynamic the Bryston 7B3s solve en passant (*this is a chess game term which is very appropriate here, the translator*). The amps respond incredibly fast to minimal signals without sounding ostentatious or

concerned – in any case fine dynamic will not be a parameter that will introduce the first comments or discussions during a demonstration of the 7B3s: On the one hand there are more “wiry”, “edgy”, “sensational” amps, and on the other those that indeed lean to “rounding.” The 7B3s instead serve to provide unpretentious natural reproduction.

When one illuminates the topics resolution and fine dynamics then the high frequency range is always in the limelight so basically I can be brief: Absolutely linear, airy, pleasant, truthful – everything is there, and even in the attic, i.e. up high, in a positive sense unobtrusive. For example if my memories don’t completely deceive me, the likewise nicely dynamic, durable NuForce Reference 20 sounds less openly dispersed, and the highly precise Krell Duo 300 on the contrary, on the top somewhat more at rest, straighter, less smooth and silky than the Canadian team.

Let’s take a look toward the bottom – How do things look in the basement? Well, the Bryston 7B3s certainly are not among the stoic pushers that one might expect with 2 x 600 Watts into 8 Ohms, instead during appropriate bottom operation, it’s almost difficult for me to correctly describe it, because the term “dynamic” is too brief, rather slippery-loose, and despite missing angular strength, nonetheless very precisely perform their task. In any case the differentiation of individual bass drum impulses from the massive electronic guitar broadsides on *Isis* “So Did We” (Album: Oceanic) succeeds superbly, which is important because this truly not easy selection normally comes across all too undefined. Here the 7B3s perform rather like light footed movable middleweights and not like muscular heavyweights equipped with ultimate steam hammers. The Krell Duo 300, but also the AVM SA 8.2, for example push a still blacker low frequency mass, and sound on first listening possibly more obese. Light footed, yes, but by no means are they more explosive than the Bryston monos, and even the straight-dynamic

NuForce Reference 20s don't get there, because they don't reach the lower frequencies quite so uncompromisingly transparent. The latter does not indicate a flaw, it merely means that the above described extraordinary clarity and transmissivity of the Bryston 7B3s also applies to their bass response.



“Clear and neutral like spring water” is likewise an appropriate phrase to describe the midrange reproduction of the Bryston 7B3 power amplifiers. Nonetheless the quite direct unrefined, but recording worthy, “Es war” (“It was”) of the French Avantgarde-Pop-Combo *Clair Obscur*, that is the voice of Christophe Demarthe is in no way reproduced in a cool or colorless fashion. (Album: We Gave a Party for the Gods and the Gods all came). No, the Canadians are likewise able to tune the midrange organically as well as unerringly precisely neutral. My one-time Audionet AMP for example painted tone colors somewhat more pastel-like, less opaque. The AVM SA8.2, by the way one of my favorite amps, on the contrary warmer, with a bit more liberal color application compared to our ultra-transparent 7B3s with a bit of reduction in matters transparency and resolution. Well, the 7B3s (so much I can already divulge: in the meanwhile likewise among my top favorites) in regard to the mid-range are not among the hard analysts, but also not the opposite of their kind, but serve as incorruptible listening tools as well as involving pleasure providers.

Spatially, the Bryston 7B3s while first listening to them, provide what one expects from mono amps of this class: The music flows freely from the speakers and approaches the listener, rather than that an unemotional view of the event is presented. The involved stage dimensioning and the directional accuracy likewise succeed as expected. Distinctive features, their specialties, the 7B3s deliver in more sophisticated areas, be it with the plasticity and definition of transients or trivialities like a trace of a mixed-in guitar, or with subtle hall effects: Everything in the music, no matter how “miniscule”, receives in the true sense of the word its space, when it's sent

over the Bryston 7B3 pair. Up to now I have never heard this kind of quality from any other amplifier.

3 Test Result: Bryston 7B3



The Bryston 7B3 power amplifiers are among the most impressive examples in which on the one hand “genuine” resolution and transparency and on the other lack of fatigue and long-term durability in no way oppose but rather mutually reinforce each other. The Bryston 7B3 duo is a boisterous power package and a sensitive precision machine as well as an organic means for pleasure all in one, in which the first point for this type of equipment and price class is virtually an “obligation”, and the other two points “voluntary” which make our test subjects, the 7B3s, quite exceptional.

A bitter pill which we must swallow is the almost exceptionally long break-in time. Furthermore those that especially purchase power amplifiers because they are looking for overt sensations in the lower levels in the form of ultimate blackness and massive propulsion might possibly be happier elsewhere. The extraordinary neutral Bryston 7B3s on the bass side, and coarse dynamically, have a firm grip on any speaker, play accurately while not pushing stoically and heavily weighted in the bass region, the Canadians aim at a comparatively fluid-fast, yes, light footed, relaxed playing field. Listen yourself and determine if that doesn't at times sound more realistic

than the heavy footed appearance of many other power amplifier colleagues, or if you are possibly missing a shot of bulldozer mentality...

The Bryston 7B3s stand out due to...

- **The evidence that “genuine” transparency and permeability are absolutely there strictly to serve the music, as well as the long time listenability – the Canadians sound exceptionally sensitive-silken and are among the most translucent and diaphanous amplifiers that I know.**
- **Tonal neutrality.**
- **Likewise “fast” as well as genuine fine dynamics.**
- **A bass area which leaves no doubts in reference to going down, energy content, and rugged dynamics, that mature transistor mono amps are at hand, but the 7B3s are rather more jaggedly fluid, than that they push massively and deep black.**
- **A linear, airy, precise, simultaneously well integrated, organic high frequency response.**
- **Highly differentiated midranges without any kind of special sound design – no extra portion of languorous warmth and indulgence, but also no subtle coolness.**
- **Category appropriate, authoritative stage representation. The manner in which even subtle and short, transient, components of the music are vitalized with a plastic life of their own deserves extra applause in this price class.**
- **Absolutely robust, significant, but not necessarily glamorous operation.**
- **A still satisfactory energy efficiency of 75 Watts per channel at idle for mono amps of this style and performance class.**

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Translated from the German by Peter Ullman