



Test: Bryston BP17 Cubed and Bryston 4B Cubed Power Amp Combination

By MARTIN MERKENS | May 16, 2018



Bryston – a name like the echo of thunder! In my “HiFi-youth” (over 30 years ago) one referred to the, at that time young, firm in one breath with American heavyweights like Threshold or Mark Levinson. Now the brand new Bryston BP173 preamp stands in front of me and is most anxious to demonstrate, together with my Bryston 4B3 power amp which I have been using for almost a year, what an actual Bryston combination (Distributor: www.avitech.at) BP173: 4487 Euro, 4B3: 6547 Euro) can achieve.

So it goes. Threshold sank into insignificance after the departure of Nelson Pass who started his own firm with Pass Labs. Mark Levinson drifted pricewise to - let’s say - “very ambitious” domains. With one leg firmly embedded in the professional arena, Bryston did not have to go along with the trends and modes of the High-End, nor take the route to straight Cost-No-Object-HiFi. Bryston remained down-to-earth. The price was that the Canadians suffered presence in the consumer area, and that they disappeared from the radar of many HiFi enthusiasts, and also from mine.



Bryston BP17³ and 4B³ are available either in black or silver

My first reacquaintance with Bryston took place a few years ago. I was allowed to test loudspeakers for a magazine. As a working tool I had among others a Bryston 4BSST2 professional power amp at my disposal, and the more I worked with the rather unobtrusive power amp, the more different loudspeakers I connected to it, the better I liked it. The “thing” stayed away from any kind of interference, played perfectly with every kind of loudspeaker, and to the last detail produced the characteristics of each of the different speakers. Thereby I always had the impression that each speaker was the soundwise limiting factor, never the amplifier, and moreover the Bryston amp painlessly forgave rough handling. A “short circuit” while reconnecting a loudspeaker cable? No problem. Frequent turning On and Off (after I found the power switch) it did no bear a grudge. The 4BSST2 remains in fond memory as a soundwise superior, ultra reliable workhorse.



Then my colleague Jörg Dames tested the large Bryston mono 7B3 amplifiers. At this time I made the decision to acquire the subsequently released successor to the 4BSST2 amp, the 4B3 amplifier which has now been in use by me for some time. When the time came to test the new Bryston BP173 preamp together with the 4B3 amp, I needed very little coaxing.

I had a small controversy with my colleague Jörg Dames whether Bryston components look better in silver or black. He believes in silver, I believe in black. The consequence is that my Bryston 4B3 is black while the test sample of the 17BP3 came in silver, which is apparent in the photos of this test.

Let's take a closer look at the preamp: The front of the BP173 consists of a 6.2 mm thick aluminum front panel. That thickness suffices to accommodate a few elegant curvatures and chamfers – especially because it is a short U-profile – so that the upper and lower edge is larger, and the front appears to be thicker than it really is. The rest of the cabinet has the correct color (black) and consists of stable sheet metal. It is very substantial, looks absolutely upscale, but is far removed from the – at least partially worthy of discussion - material battle of other high end components. I like that.



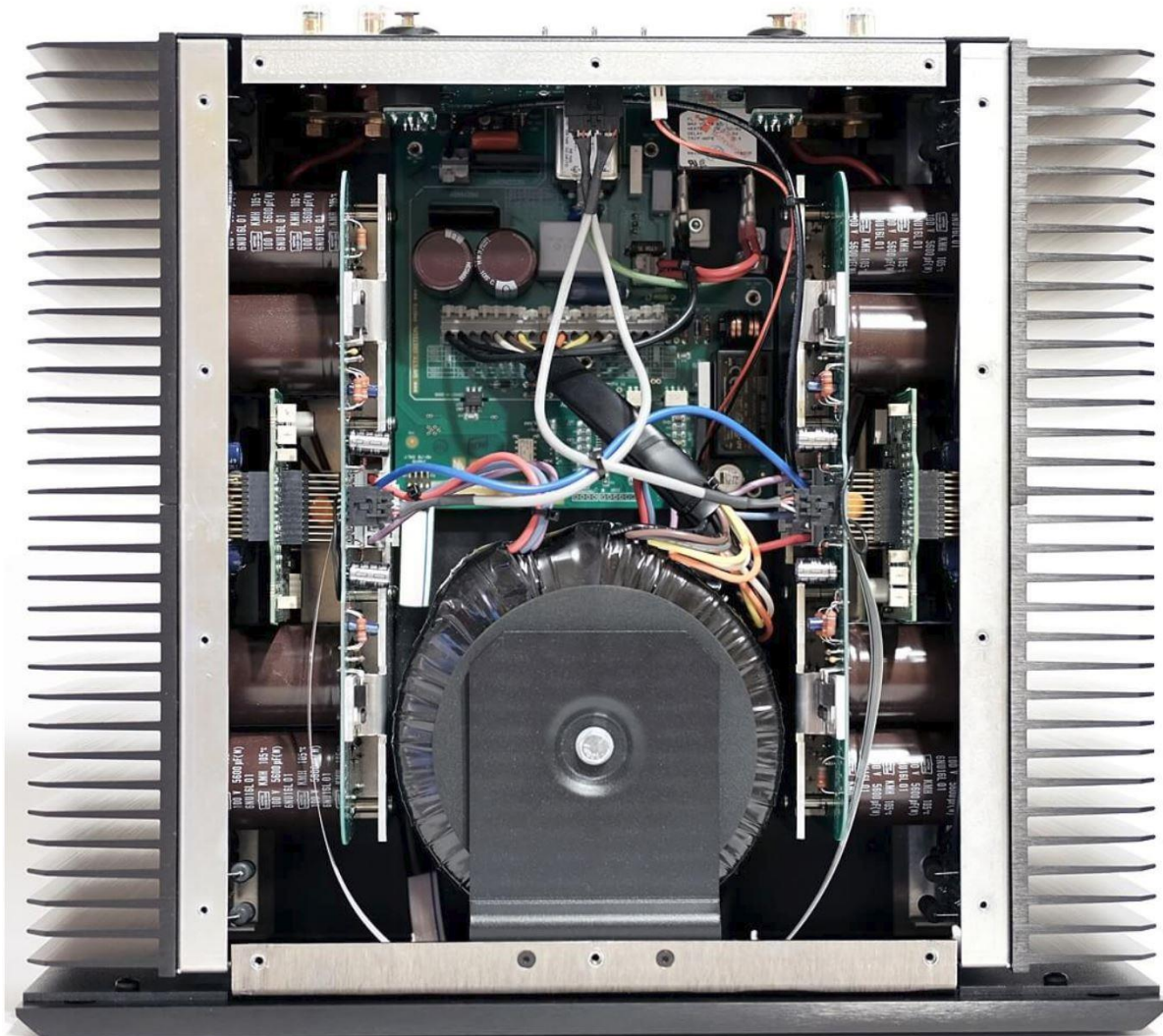
Despite that, the Bryston BP173 preamp is able to exhibit a decent weight of five kilograms due to its inner parts, and especially due to its power supply. The toroidal power transformer that Bryston uses here would stand in good stead in many a power amplifier. Otherwise there is much air space in the cabinet. This is primarily due to the printed circuit boards being assembled with SMD components. This, in turn, assures the shortest signal paths and requires little room. There is so much room that Bryston offers an optional MM phono board and a DAC board, which are installed on the main printed circuit board, for the BP173 preamp. The labeling for the additional inputs, specifically the configuration changes to the available inputs which accompany the optional boards, are already printed on the front panel, which can at first be confusing.

What else is there to report? That the Bryston BP173 preamp has a regulated preamp output besides five single ended outputs, and one unregulated Rec-Out output. Beyond this there are two balanced inputs, and two balanced preamp outputs. Of course there is also a remote control (BR2: 485 Euro) which controls, as needed, not only the preamp but also other Bryston components. This makes the remote control a bit confusing, especially because the captions on the inputs do not agree with those on the front of the preamp.



The power amplifier Bryston 4B³

The 4B3 power amplifier is of a different caliber. The front consists of a massive 12.7 mm aluminum front panel, however this material is not an end in itself because the 4B3 amp is also available in a pro version with a wider front panel for installation in a 19 inch rack. Because the front panel must support a major portion of the 26 kilogram which the amplifier weighs, its material thickness is certainly justified. In the 4B3 amp the power supply also contributes a considerable part of the overall weight. Two giant toroidal transformers, which for reasons of space saving are located on top of each other, also add substantially to the overall weight. Not only the toroidal transformers, but also the 2 x 300 watt into 8 ohms output stage exhibits a neat double mono construction. In contrast to the preamp things are quite snug here. Between the large heatsinks located on the sides, there are transformers, many filter and buffer capacitors, various circuit boards which are loaded partially with conventional parts and wires and partially with SMD parts. Besides the actual output stages there is a board with an elaborate current limiting circuit in order to prevent fuses from blowing when the amplifier is switched on, as well as a few boards for control and regulation circuits. As a professional component the 4B3 amp is built for extremely high operational reliability.



The inside of the Bryston 4B³

The professional requirements also manifest themselves on the rear of the 4B3 amplifier. The Bryston amp accepts single ended signals via two RCA inputs, while for balanced signals there is a pair of combination inputs which will accept XLR plugs as well as ¼ inch phone plugs. Naturally there are also loudspeaker terminals as well as further connections with which the amp can be remotely controlled. Small rocker switches facilitate switching between single ended and balanced input, and for choosing the amplification factor (26 dB for a source with balanced output, 29 dB for a source with single ended output) or for operating the amp in balanced mode, in which case it delivers mono 900 watts into 8 ohms.



The back of the Bryston 4B³

Incidentally the large switch next to the left loudspeaker terminal is not the main switch, but a “Master Circuit Breaker.” It must be set to “ON” when one plugs in the amp. Then it conducts a small individual test. In the meantime the LED on the backside blinks green, when it jumps to red, the 4B3 amplifier can be turned on with the main switch on the front.

Sound impressions & comparisons: Bryston BP17³ and Bryston 4B³



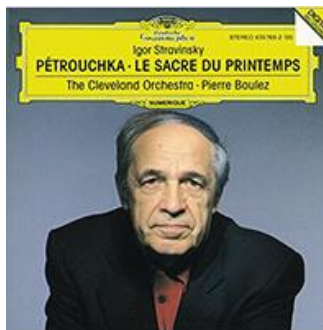
The Bryston BP173 preamp is taking the place in my HiFi rack of my EAR Yoshino 868 preamp, not the newest semiconductor technology of the year 2017, but rather tube technology appropriate to the seventies, incidentally also a preamp of a studio supplier. The Bryston 4B3 already had a fixed place in my HiFi rack. The first measures from the Bryston combination (BP173 and 4B3) make clear that the Canadians follow very modern sound ideals. Tonally the Bryston combo shows itself to be absolutely neutral. I am certain that under this aspect one cannot add any characteristic. It is neither “warm” nor analytically “cool”, rather in matters of tonality so little is mixed in as one would hope from studio equipment.

Apart from the tonality the BP173/4B3 combination does display a few significant characteristics – further down below I will illuminate the 4B3 separately, which, so much I am allowed to reveal, qualifies as something extraordinary.

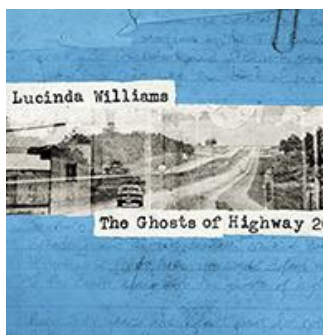
The Bryston BP173/4B3 Combination in Soundcheck



So let's go to the combination: I start my listening session with *Paula Morelenbaum's* album *Telecoteco* (listen to it on Amazon). The Bryston components reveal the track “O Samba O E Tango” with such energy that it's simply thrilling. Foremost the speed and dynamics of the synthetic bass runs impress me. Then there is *Madonna, American Life* (listen to it on Amazon), simply the test track for crisp synthetic bass. The peculiar abrupt stops of the lower tones, which characterize some of the collected tracks here, such as “American Life” or “Die Another Day”, are brilliantly reproduced by the Canadian amplifier duo. The representation comes across crisply controlled.



However there are not only synthetic basses, so why not once again (light) classics? The music for the ballet *Le Sacre Du Printemps* offers a broad spectrum of instruments. I am going back to the recording of *Pierre Boulez* with the Cleveland Orchestra (listen to it on Amazon). Plucked contrabasses celebrate rapturous ecstatic activities, forcefully called to order and to stop by the tympanis. Once again the Brystons transport the dynamics of the whole in an impressive manner. Ok, I have heard the whole already a bit mightier and urgent. However from an austere pragmatic viewpoint that is absolutely correct, the Bryston combination adds nothing artificially, nor do I have the impression that it withholds anything.



The next discipline is the midrange where according to my experience the reproduction of the most natural of all “musical instruments” the human voice is most critical. Despite spring breaking out, I feel a bit in apocalyptic mood, for which *Lucinda Williams* is quite appropriate. Incidentally she increasingly withdraws from the influence of the music industry with its unbearable profit maximization for artists and consumers, and produced her last albums under her own label. And look at

that: for a reasonable price it is possible to offer superbly produced vinyl, which at the same time is accompanied by a code for the download of the music as a highly resolved wav-file. Since the Bryston BP173 arrived without the phono option my Linnenberg Teleman DAC is put to use and takes on the digital data of the album *The Ghosts of Highway 20* (listen to it on Amazon). The understated brittle voice of Ms. Williams comes near, intensive, raw, and melancholic. That gets under your skin. Electric guitars and percussion accompany the song – on this album for my taste a bit too smoothly, but the amplifier combination can't be blamed for that. On the contrary everything is extremely listenable – from the details of the voice, over the playing of the electric guitars, to the percussion, the Bryston combo satisfies across the entire line. Together with my EAR-Yoshino 868 the Bryston 4B3 amp reproduces the voice of Ms. Williams here and there still more emphatically, however the tube preamp is tuned a bit warmer and therefore has a marked foible for voices. Therefore it cannot be considered quite as neutral as the Bryston BP173 preamp.



Front & rear: the Bryston BP173

However at both edges of the frequency spectrum, as well as at the upper end, in the heights, the pure Bryston combination performs more clearly than with the EAR-Yoshino 868 in front. Here the character of the Canadians is similar as in the basses, very clear, controlled and precise, and at the same time they effectively make an impression after every tone. Where brushes are on cymbals, i.e. steel meets bronze alloy, the Bryston BP173 and the Bryston 4B3 combo leave not a miniscule doubt what is going on, presume nothing, and truthfully follow the decay of every beat.

In reference to spatiality, the Bryston BP173 and 4B3 combination moves the stage quite close to the listener, one sits rather near the front. At the same time they present the stereo panorama comparatively wide, and sort the goings-on very well. Ms. Williams stands close to me on the stage, her companions stand with a bit of space right and left next to her. Furthermore the percussion is only moved a bit back. Generally the room

expands more in width than in depth, whereby also the spatial perspective functions cleanly, however the overall room does not go too far back.

Primus inter pares: The Bryston 4B3 Amplifier

(Translator note: “Primus inter pares” Latin for “First among equals”)



That the described character of the Bryston combination primarily refers to the BP173 preamp is shown by the Bryston 4B3 amplifier in connection with other partners. If, for example, the Linnenberg Teleman DAC, which is equipped with a high quality volume control, takes over the control of the amplifier, it becomes clear that the Bryston 4B3 is the secret star of the combination. With the Linnenberg Teleman DAC the bass maintains in comparison to the BP173 its exemplary control and precision but gains in substance and force. Especially when it goes into the deep bass, an increased authority is noticeable, but at the same time the Bryston 4B3 amp has absolute control of the loudspeakers. The heavy 300-mm-woofer, part of the Spendor Classic 100, which I sometimes connect for tests, is controlled perfectly by the 4B3 and succeeds in dragging the perceived infrasonic synthetic basses of *James Blake* cover version of the Feist Songs “Limit to our Love” (Album *James Blake*) (listen to it on Amazon) into my listening room without anything acting rudimentarily or uncontrolled. The large chassis do carry out visible thwacks, and I am waiting for my neighbors to come running into the street because they think the house is falling down.

On the other side the Bryston 4B3 also gets along quite well with light horn loaded broad band speakers like Tune Audio Prime, which is unusual. Usually one connects such loudspeakers to single ended 300B amplifiers which offer almost no damping factor, so that the already tight speakers have enough room to “freely” perform and sound more substantial. The Bryston 4B3 amplifier masters the art of getting along with subwoofers of any kind, while not sounding swaggering, anemic, but simply always right.



This “right” also applies to other frequency domains. In interaction with my EAR Yoshino 868 tube preamp the Bryston 4B3 amplifier demonstrates how fascinating voices can sound. The 4B3 amp provides the finest details of articulation and convinces both with the throaty voice of *Buika* (Album *Nina De Fuego*) as well as with the rhythmically accentuated Song of *Ulita Kanu* (*The Moon on My Doorstep*) or with *Leonard Cohen's* creaking speech song (*Live in London*). In the process the Canadian 4B3 amplifier supplies details, rhythm, voice formation, and articulation – simply everything respective to the voice – incredibly plastic and intensive. *Zaz* album *Zaz* (listen to it on Amazon) makes clear with the opener “Les Passants” that the Bryston 4B3 amp also performs incredibly fine within the high frequency range. The glockenspiel at the beginning of the selection was

recorded almost painfully high as well as loud – but nonetheless through the 4B3 amp it is acceptable, and sounds exceptionally clear and clean.

Also in matters of spatiality the Bryston 4B3 amplifier with its connected electronics, respectively the loudspeakers, scales, i.e. performs very well. With the Linnenberg Teleman component the reproduction is less wide, but deeper and very plastic, between the individual tonal sources there appears to be more air.

Test Report: Bryston BP173 and 4B3



The new Bryston BP173 is a preamp for pragmatists. It sounds clear and straight, and yet tendentially unpretentious-austere rather than ethereal-subtle. At the same time it does not favor any frequency range – neither tonal, nor does it impart specific ranges more resolution, fine dynamics, or whatever. The BP173 preamp always displays the same high precision in the bass, in the middles, and in the heights. The spatial representation goes more easily into the width, is very precise, and a sense of depth is a bit less pronounced. That is convincing and appropriate for the clear, immediate, yes, direct character of the BP173 preamp.



The 4B3 power amplifier is for me the absolute test highlight. Since this is after all my “daily work power amplifier”, I was able to collect experiences with different loudspeakers as well as with diverse electronics connected to it. Besides the highest tonal neutrality, I can attest the Bryston 4B3 amp especially high “transparency.” One is

precisely aware when electronic components attached to it are changed, and conversely on the other side the 4B3 amp reliably divulges everything from the connected loudspeakers. The 4B3 amplifier is highly efficient, stable with any load, and is certainly appropriate for any dynamic excesses one wants to stage in the four walls of one's home.

On the other side the Bryston 4B3 amp is extremely finely resolving, finely dynamic, and incredibly "fast." In the bass region it offers extreme control, and also masterfully drives the cones of heavy subwoofers, however it gets along equally well with broadband speakers, which it does not "over control." In the middle the Canadian performs cleanly, transparently, powerfully, and highly resolving. There also appear to be no limits in the higher ranges. Whoever owns this amplifier is able to change and exchange many components of her/his audio system – the 4B3 power amplifier will undoubtedly be the last component that one will want to change in order to achieve some improvement. I am actually of the opinion that the Bryston 4B3 amp in sum is actually one of the best power amplifiers in the market – at the very least when it comes down to an amplifier that should behave in the ideal case like an "amplifying wire", i.e. as neutral and transparently as possible. Grandiose.

The Bryston BP173 preamp distinguishes itself by...

- A tonal neutral voicing, which should be considered exemplary since it doesn't show even a small tendency in the direction of warm or cool.
- A broadband reproduction and a clear representation of tonal events to the ends of the frequency spectrum.
- A controlled, crisp, precise bass, which foregoes any kind of opulence and lets nothing get out of hand. At times this could lead to a bit of loss of substance and authority of the bass area.
- Straight clear middles which it reproduces clearly, just like the entire frequency spectrum.
- A clear upper range, which shines without overpowering. Precision and orderliness are more important here than any kind of ethereal "air." Also in the high range the Bryston BP173 somehow conveys something down-to-earth.
- A wide, facing the listener, stage, on which instruments and musicians are clearly and stably presented, slightly more in width than in depth. The depth dimension is not quite so distinct; friends of a holographic reproduction are somewhat less fulfilled. The BP173 preamp stays with the facts: It is a stereo setting, which transmits room information via two channels, and they are right and left.

The Bryston 4B3 power amplifier distinguishes itself by...

- A tonally completely neutral reproduction. Should the 4B3 amp ever seem to you to be warm or cool, then that is with high probability due to other components in your reproductive chain.
- Highest transmissibility of the complete frequency spectrum. The 4B3 amp shows no sign of weakness in any frequency range. One literally seems to be able to hear the quoted Bryston bandwidth of 1 Hz. to 100 Hz.
- Superb bass control, whereby the Bryston 4B3 power amplifier shows itself to be very variable in reference to the connected loudspeakers. It takes over heavy subwoofer cones and controls them admirably, in contrast to lighter broadband speakers which it leaves enough "play space" so that a substantial bass performance remains assured.

- Fine sonic detail and fine dynamics are on an extremely high niveau.
- Rough dynamic reserves: The Bryston 4B3 amp actually does not sound like a “thick power amplifier” – but when required it is unperturbed and does supply the masterful performance that is needed.
- A spatial quality which seems to escalate limitlessly with the rest of the electronics or the loudspeakers. In any case I could hear no effects here which could be attributed in any manner to the 4B3 amp.
- High operational safety. Protective circuits against short circuits, overload, or overheating, reliably protect the 4B3 amplifier.

ASSOCIATED EQUIPMENT:

ANALOG SOURCES: Turntable: stst Motus Tonearm: stst Vertex Cartridge: Zyx Yatra

DIGITAL SOURCES: D/A Converter: Antelope Zodiac+, North Star Design Supremo CD Player: North Star Design CD-Transport

PREAMPS: High Level: EAR Yoshino 898 with NOS-Tubes Phono preamp: Musical Fidelity MX-VYNL

POWER AMPLIFIERS: Bryston 4B3

LOUDSPEAKERS: Valeur Audio Micropoint 4 SE, Genelec 8020

EAR PHONES: AKG K702, AudioQuest Nighthawk, Beyerdynamic T 51p, fabulous earphones Basic Dual Driver, Sennheiser HD8 DJ

EAR PHONE AMPS: Opera Consonance Cyber 20 mk2, SPL Phonitor mini

CABLES: Loudspeaker Cables: Cardas Clear Light NF-Cables: Cardas Clear Light Digital Cables: AudioQuest Coffee

RACK: Lovan Sovereign, Tiglon TMB-10E

ADDITIONAL EQUIPMENT: Current Filter: Audioplan FineFilter S, Mehrfachsteckdose PowerStar S, Instrument Filter PowerPlant S, Netzleitungen Power Cord

SIZE OF THE LISTENING ROOM: Floor Area: 17 square meters Height: 2.6 meters

Translated from the German by Peter Ullman