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STEREO

THE GERMAN M

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EXCLUSIVE: BALLFINGER M063
TAPE WITH THE MIDAS TOUCH

**REVIEWS: BRYSTON 4B3 +++ CABASSE BALTIC/SANTORIN 38
+++ OCTAVE V110SE +++ DYNAUDIO SPECIAL FORTY AND MORE!**



O, CANADA!

Bryston amplifiers are living legends, combining high-end sound with famous robustness, all backed up with a 20-year guarantee. Now they come in a different shape...

Yes, I admit it: I've always been particularly enthusiastic about powerful amplifiers: even when using high efficiency speakers for numerous listening experiments and even public "World of HiFi" demonstrations, I appreciate that when power reserves are available, amplifiers sound best when working in their 'comfort zone'. That's never a problem with the products of Canadian brand Bryston, because they excel at supplying great sound, solid build and „audiophile punch“ in the professional and HiFi sector alike. „Quality with bang,“ as I like to call it.

The ideal amplifier is straightforward: the old idea of "a straight wire with gain" that amplifies without taking away or

adding anything. And Bryston has been synonymous with this in the industry for four decades, which why – although this isn't my first encounter with the company's amps – I really pushed myself forward to tackle this, my first formal test. After all, I'd already found the classic 3B and 4B amplifiers (see box) more than interesting, and even desirable, while the 14B SST, the holder of the STEREO performance record, was sensational.

Honorable Family

So here they are: the latest reincarnation of the 4B and the

matching, second largest Bryston preamp, the BP17, both in the „Cubed“ – or “3” version.

And things have changed: not only do the BP173 and 4B3 look completely different – due to the changed living ambience of the company's rather well-off clientele – but the internal design is also more exhibition-worthy than pragmatic. It is clear that the engineers' entire intention is to achieve the best possible:

the components, housing and workmanship are indeed of the finest quality. The preamplifier is fully balanced and completely built using in production-friendly SMD technology, leading to extremely short signal paths. The slots on the main circuitboard – for options



◀ The metal-cased handset is a system remote control - and an extra-cost option.

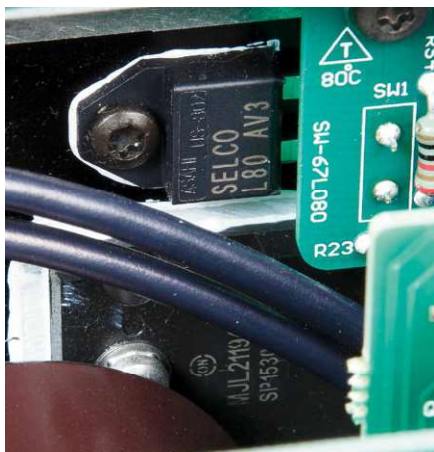
including an €1800 DAC module and a €1050 Phono board – are noticeably vacant in the sample we have, this basic version crossing the counter for €4,490. However, the add-ons can of course be retrofitted, making the preamp both future-proof and budget-friendly. That obviously-intended long lifecycle and a 20-year guarantee speak for themselves: this is a preamp built for the long haul, only to be changed when something else makes sense and you are convinced of it. Even then, you're likely to get a decent return at trade-in time – that extensive warranty works wonders when looking for a 'second user'.

As a classic Class AB design, the Bryston power amplifier has an internal layout dominated by two huge toroidal core transformers stacked one on top of the other. Okay, so according to an unwritten law, the quality of an amplifier is determined by its power supply, so you can be pretty sure of no worries here, and so it proves: the 4B3 claims 300 watts into 8ohms, or 500W into 4ohms, and it can even mobilize more than 600W for short term pulses in the short term. Per channel, of course: the load resistances are already slowly glowing. The gain factor can be switched between 23 and 29 dB and the design allows mono bridged operation, at which point the 4B3 is capable of 900W into 8ohms, thus fits nicely into the old Rolls-Royce power description of "adequate"! The innovations of the „Cubed“ generations lie in a particularly sophisticated feedback concept of the input stage and further improved



▲ Two stacked and solidly clamped toroidal core transformers contribute to the hefty weight of the 4B3.

A fully symmetrical design with numerous options for expansion distinguishes the modern amplifier team. ▼



▲ Thermally controlled, bipolar high-performance transistors adorn the heat sinks.



suppression of RF, common-mode and negative power supply influences. The amplifier, like all the Cubed models, is available with a choice of faceplates, in black or silver and in three designs: 17in (43.2cm) or 19in (48.25cm) wide, with the 19in version also available with rack-mount 'ears' integrated.

Modular high-tech preamplifier

The fully-balanced Class A preamplifier is the result of more than two years of meticulous development based on the original BP-17 and combines Bryston's best analog technology. A new, patented input buffer is used throughout the "Cubed" series, as well as a new symmetrical volume control with extreme precision/channel balance. The development team, led by CEO and co-owner Chris Russell, honoured the late co-developer Dr. Ioan Alexandru Salomie by naming the input circuits „Salomie“ after him – and although the optional DAC module was not fitted to the test sample, Bryston has nevertheless attached importance to the strict current and mass separation of the analog and digital parts in the design of the preamp and its preparedness for the extra modules.

The slots for optional Phono-MM, MC or MM/MC (left) as well as DAC (right) are visible under the hood of the preamplifier. Of course, the investment can also be split in time, i.e. retrofitted. ▼

HISTORY

Based in Peterborough, Ontario, Canada, and founded in 1962, Bryston originally focused on medical technology, but since the mid-1970s has dedicated itself in to the production of electronics for professionals and audiophile purposes, and in particular amplifiers. The reliability of the brand is ensured by subjecting each manufactured device to a 100-hour trial and inspection before it is passed for shipment – which is one reason for the unusual 20-year warranty. Bryston's key product was, is and will probably remain the 4B stereo power amplifier, which has been improved, further developed and lovingly maintained for generations. While we see the latest generation 4B3 in the above test, the original version from mid 1976 can be found on the right of the photo, spanning over 40 years... Time has not stood

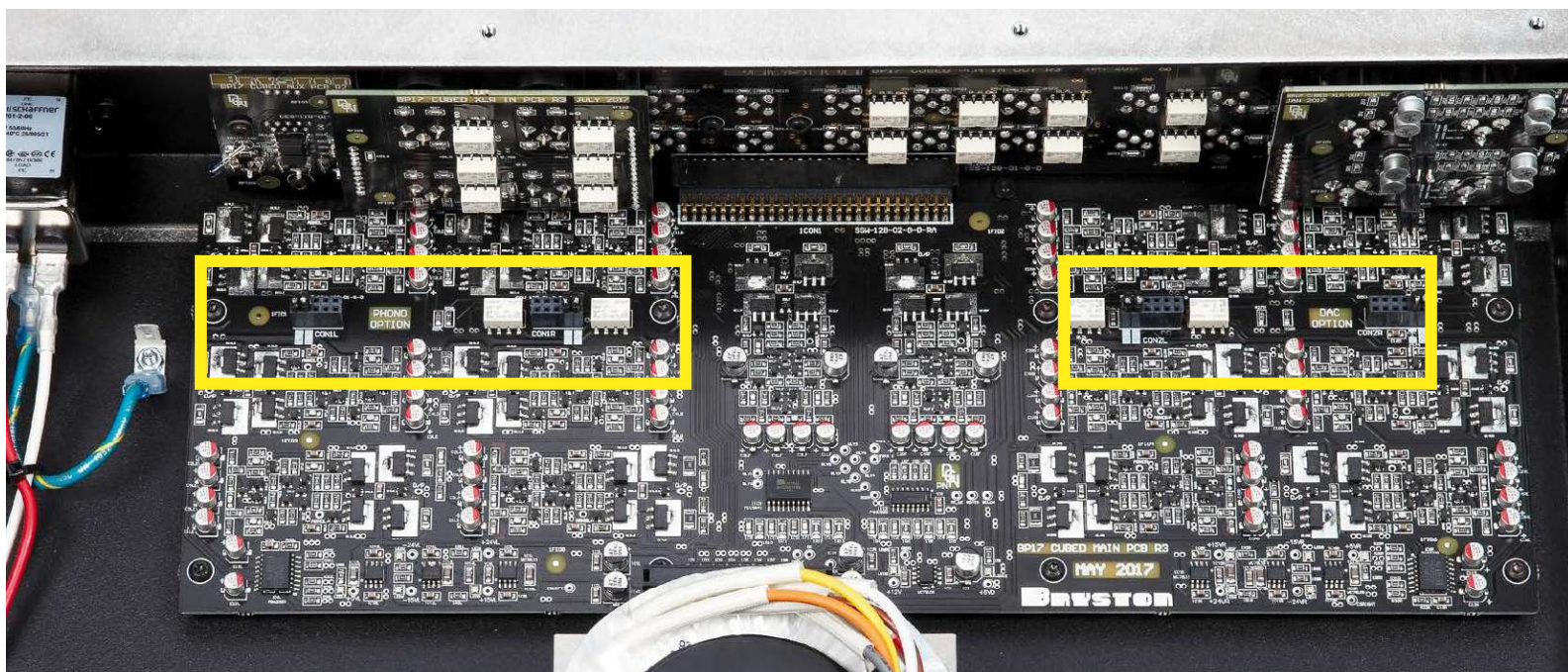
still, and technical progress has led to higher performance, greater broadband capability, faster signal processing, better distortion and noise characteristics and thus higher dynamics and better sound, even though the older Brystons remain good, extremely robust amplifiers. As we all know, even better successors will not change that. Rather, the new generation of devices will take the successful Bryston saga to a new level.



Earlier Bryston components – especially the 4B – had the reputation of offering great sound in an indestructible, straightforward form, being about as uncomplicated and practical as a hammer. They had a certain lumberjack charm of captivating simplicity – and as an academic who knows how to cut down a tree because he has already done it, I can say this without disrespect –, but that achievement was the result of complex art. This is only partially the case with the current, modern and elaborately designed generation – something one notices, for example, in the switching on ritual of the power amplifier,

which is far from simple and sometimes only succeeds even after you're used to it.

Both our measuring laboratory and the photo studio needed editorial support to get the extremely powerful power amplifier into operation, even though both deal with amplifiers every day. The problems was down to the built-in circuitbreaker, which – contrary to expectations – is not a normal main switch and should always remain switched on; to a 20 second delay for the next attempt; and to the self-diagnosis sequence, which checks both the mains voltage and the amplifier stages before it is switched on and also requires



the front switch to be operated. By contrast the preamplifier has no „hard“ mains switch at all.

All this is far from self-explanatory, but is actually only problematic once and quickly becomes a matter of course for the owner, and getting it wrong isn't a problem, as the protection of the devices is perfect. What's more, unlike many other amplifiers, the Brystons reached us with a marked and even matching mains phase, which speaks for a well thought-out and very constant production organisation.

In the STEREO listening room, the Brystons unleashed a kind of unbelievable elemental force, whose pronounced rhythm, texture and subtlety amaze on closer inspection. The bass is the first thing you notice, eliciting deep and crisp impulses of rare quality, and while the rest of the spectrum may be a little less spectacular, it plays its part in creating a performance of enormous clarity, solidity and accuracy. These are the all-round amplifiers of which the discerning listener dreams, and yet still in the realm of affordability.

The new Bryston amplifiers – for me the superstar of the ensemble is the power amplifier that comes close to the top references – are uncompromisingly modern in their classic design, but still synonymous with reliability and long life expectancy. With their natural tonal quality, their grippingly dynamic character and their consistently incorruptible, effect-free neutrality and tranquillity, they rank among the absolute upper echelons of international amplifier construction.

This also means that they project the emotions of a recording into the listening room, neither overstating nor restraining anything. They literally leave nothing out, their meticulous attention to detail is astonishingly good, and it's all accompanied by stirring rhythms of the kind only possible with fast amplifier capable of potent bass.

They are solid as a rock, but able to release unimaginably enormous explosive force when required, and for me they combine professional and audiophile qualities in a unique way, and should definitely be heard when thinking about purchasing top-quality amps. The legend surrounding this brand is absolutely true and justified, and its product is superb.

Tom Frantzen

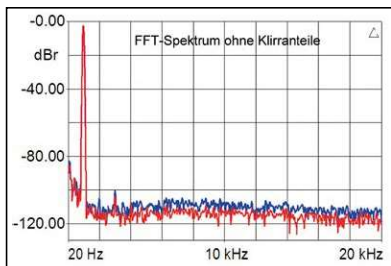
BRYSTON BP17³



from €4490
 (remote control €490, DAC module €1800, Phono MM €1050)
 Dimensions: 43 x11 x35 cm (WxHxD)
 Warranty: 20 years
 Contact: Avitech
 Phone: +1 705 742 5325
 www.bryston.com

An outstandingly neutral, solid and expandable, fully symmetrical preamp, the BP173 could just as well originate from studio technology, yet is more than audiophile with a strong rhythmic touch. Listen!

MEASUREMENT RESULTS



Maximum output voltage (1% THD)	15.6 V
Gain factor from high level input	12 dB
Distortion factor at 0.03/0.3/1 V	0.04 %/0.006 %/0.002 %
Intermod. at 0.03/0.3/1 V	0.07 %/0.0004 %/0.001 %
Signal to noise ratio at 0.3/ 0.03 V	89.3 dB(A)/69.6 dB (A)
Input sensitivity for 1 V out of	268 mV
Overload resistance	inf. V
Upper cut-off frequency	>80 kHz
Volume control, synchronisation error	at -60 dB 0.1 dB
Stereo channel separation at 10kHz	92.7 dB
Standby power consumption	<2 W
Power consumption idle	31

LAB COMMENTS: Outstanding low noise and distortion, all transfer functions are superb. The 69 dB common mode rejection is remarkably high, which not only reveals true symmetry, but also meets studio standards.



FEATURES

Two balanced inputs/outputs each, five RCA high level inputs, tap loop, headphone jack, remote control, phono/DAC optional (modules)

STEREO - TEST

SOUND QUALITY 88%

PREIS/LEISTUNG



EXCELLENT

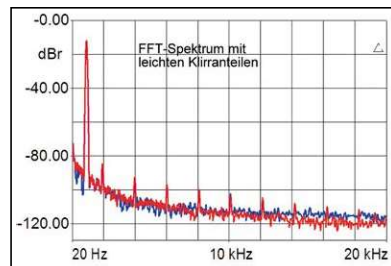
BRYSTON 4B³



around €6550
 Dimensions: 43 x15 x42 cm (WxHxD)
 Warranty: 20 years
 Contact: Avitech
 Phone: +1 705 742 5325
 www.bryston.com

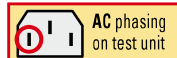
Latest version of the legendary double mono amplifier from Canada. A real powerhouse of enormous robustness and power (around 300/500 watts output power per channel), it sounds incredibly powerful, fast and lively. Top class, listen to it.

MEASUREMENT RESULTS



Continuous power (8 Ohm / 40hm)	311 W/499 W
Pulse power 4 Ohm (1kHz)	624 W
THD at 50mW/5W/1dB Pmax	0.05 %/0.01 %/0.01 %
Intermod. 50mW/5W/1dB Pmax	0.004 %/0.005 %/0.01 %
Signal to noise ratio at 50mW/ 5W	61.2 dB/81.2 dB
Attenuation at 4 Ohm (63Hz/1kHz/14kHz)	142/100/60
Upper cut-off frequency (-3dB/40hm)	>80 kHz
Power Consumption Stby/idle	<2 W/58 W(221 volts)
weight:	28,5 kg

LAB COMMENTS: Very high power and pulse reserves with very low distortion and good channel separation as well as adequate damping factor. Fast (broadband) switching. Astonishingly low idling consumption for performance.



FEATURES

Balanced and unbalanced inputs, switchable gain 23/29 dB, remote trigger switching, connection for one pair of speakers, bridgeable for mono operation (900 watts into 8ohms), sophisticated protection circuitry concept, 19-inch rack handles optional

STEREO - TEST

SOUND QUALITY 95%

PREIS/LEISTUNG



EXCELLENT