

# the ear

## HI-FI MUSIC GEAR

hardware review



### Bryston 4B3

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Bryston's latest cubed amps are a logical follow on from the previous squared series in naming terms at least, and it factor terms too, as this represents a pretty thorough overhauling of Bryston's core product range; power amplifiers.

Bryston's Chris Russell explains it thus: "As far as the Cubed Series goes; first, it employs a new and quite different type of input buffer. The input buffer is what has to deal with the vagaries and vicissitudes of the incoming signal, with its hums, RF and myriad out-of-band and/or common-mode detritus. The buffer uses compound-connected gain stages almost exclusively, in every internal stage. This makes it very high-gain and very linear. It incorporates a novel compensation scheme that provides complete stability in a complex and high-gain circuit. The input diff-amp is cascaded as well, yielding very high CMRR and PSRR [common mode- and power supply noise rejection ratios]. Another improvement in the Cubed Series is RF and hash-rejection circuitry in the power-supplies. That can be important in areas with noisy mains. Finally, we went through the remaining sections of the amps and took extra pains to eliminate low-level nonlinearities and the like in all the rest of the circuits, just smoothing everything out." In essence this means that the cubed series amplifiers should be a lot quieter than their forebears and as noise is the enemy of transparency that can only be a good thing.

The 4B<sup>3</sup> is the third model up in the cubed range but the first to hit British shores, it's a powerful but not excessive amplifier with 300 Watts on tap for eight Ohm loads and nearly double that into half that impedance. Inputs are of the single ended and balanced variety on the usual connections and the amp can be bridged to produce 900 Watts in mono should the thirst for power become intolerable. Both channels have their own mains transformers and everything thereafter is likewise separated, so there are independent powers supplies for each channel. Gain can be configured for 23dB or 29dB to suit preamplifiers with higher or lower outputs, I found the higher gain setting well suited to the Townshend Allegri passive controller used for much of the listening.

Bryston products have always been professionally put together but they have upped the ante with the cubed range, the machining is that bit nicer on the sculpted front panel and the legends etched into the top and rear of the casework are that much cleaner. It's an evolutionary thing but does increase pride of ownership in an age when this sort of thing is more important than ever.

Listening started out with PMC Fact.8 loudspeakers on the end of Townshend Isolda DCT speaker cable, a combination that made it clear that the 4B<sup>3</sup> is a considerably more refined amplifier than its predecessor. It has been quite a while since I had an Bryston power amp in the system but nonetheless I'm pretty confident that this is a distinctly quieter and thus more revealing piece of kit. Not only that but it has an excellent sense of timing, leading edges are definite without adding glare which lets horn and guitar notes shine and makes other similarly priced power amps sound lazy.

I also tried the Bryston with the rather fine Vivid B1 Decade speakers that were visiting, this was quite a treat as the resulting sound had a precision and 'rightness' that proved addictive. The amp allows the dynamic, tonal, three dimensional and, most importantly, timing qualities of the signal come through in beguiling fashion. It provides the space and time for everything to fit together and form a convincing musical picture. Lyrics are easy to follow, the emphasis in the mix is clearer and the separation between the various elements within that mix is obvious. Instrument character is very strong indeed, the electric guitar on Tom Waits' 'Shore Leave' (*Swordfishtrombones*) being a fine case in point, as are the drums on Patricia Barber's 'Company' (*Modern Cool*). The dynamics on the latter are phenomenal, a real distraction with a bigger speaker like the Bowers & Wilkins 803 D3 that was brought in to scope out this amp's reserves. But it barely broke a sweat, preferring instead to get a pretty challenging speaker jumping precisely as high as was required.



The Bryston has an innate sense of precision in its timing, it achieves this by having little or nothing in the way of smear, there is no blurring of the attack and decay of each note. It's very clean but not in a clinical way, it's clean in a transparent way. It feels like the amplifier leaves little or no trace of itself on the signal save for increasing the voltage. There are more obviously musical amplifiers on the market but they are not this powerful and on a more fundamental level you feel that they have been tuned that way; that the response is not quite as flat as it might be and that some tweaking has been done so that they charm the listener with the right ancillaries. The 4B<sup>3</sup> has no apparent tonal character, it's a slave to the balance of the signal, and of course, the rhythm.

Previous Bryston amplifiers have always been extremely neutral, powerful and even handed but they have never been this transparent. It comes down to very low noise, you don't notice the noise floor on amplifiers as such but it adds a greyness or grain that is overlaid on the music. By substantially reducing it Bryston has created an amplifier that lets you hear more of the fine detail, the stuff that produces the buzz, raises the hairs on your neck and puts you in the room with the performer. You don't necessarily need to hear all the quiet bits, you can enjoy a piece of music in the noisy environment of a car after all, but if you want the sense of being there the fine details are what delivers it. And an amplifier that gets out of the way gets you closer to that experience.

Power is not to be underestimated either, we Brits have always been a bit suspicious of high power amplifiers partly because for years we were told that they are intrinsically slow, lumpen devices that couldn't time properly if you hooked them up to a rubidium clock. That may have been true of muscle amps in the past but things are changing, a state of affairs demonstrated effortlessly by the 4B3. With some speakers it times better than highly regarded power amps from the most pace, rhythm and timing aware brands. A major benefit of high power is that you have a far greater choice of partnering speakers. From high sensitivity designs to belligerent pigs, there is no such thing as too much power. In my case it meant that bass lines from the Bowers & Wilkins 803 D3s were kept up to speed with the mid and treble, something that lower powered amps struggle to achieve.

Having real power also means you can produce the dynamic range available from good recordings and sources, again it's not obvious that dynamic peaks are being curtailed until



you hear a system with real headroom, with the ability to deliver the sort of crescendos that a good classical recording is capable of. With more compressed material having plenty of power in reserve makes listening at high levels more comfortable. I very much enjoyed 'Avratz' by Infected Mushroom (*Converting Vegetarians*), a well recorded piece of electronica with some fabulous low end on it. The Bryston/B&W pairing produced shapes and textures that were both solid and precisely placed, it was a lot of fun even at sub rave levels.

The latest 4B<sup>3</sup> is a masterful and superbly executed amplifier, if you are looking for control, extension, evenness and a whole lot of listening fun it should be very high on your must hear bucket list. I will be very sorry to see it go.

### Specifications

Type: solid state stereo power amplifier  
 Analogue inputs: single ended via RCA, balanced via XLR  
 Analogue outputs: One pair of speaker taps (via 5-way binding posts).  
 Power output: 300W/8 Ohms, 500W/4 Ohms (900W/8 Ohms bridged mono)  
 Variable gain: 23db or 29dB  
 Power bandwidth: 5Hz – >100kHz  
 Damping factor: >500 at 20Hz (8Ω)  
 Harmonic distortion: ≤.005% from 20Hz to 20kHz at 300W  
 Dimensions (HxWxD): 155 x 432 x 380mm  
 Weight: 28.6kg  
 Warranty: 5 years

### Manufacturer

Bryston Ltd  
 bryston.com

### UK distributor

Professional Monitor Company  
 T 0870 4441044  
 bryston.co.uk