



MEMO: To all Bryston Representatives
SUBJECT: B100 SST DAC Review From Britain

September 27, 2005,

Please find attached PDF's of a new review on the Bryston B100 SST DAC Integrated Amplifier.

Seems like our new integrated is making quite an impression around the world.

This review, as the British say is a REAL CORKER!



Regards,
james

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B100-SST INTEGRATED AMPLIFIER

The Bryston B-100 SST DAC Integrated Amplifier

by Jason Kennedy

Bryston is a steady company; not for its employees the frippery of garibaldi biscuits or cream puffs, this is a fruitcake and almond slice munching organisation with its feet firmly on the ground (plane). As Bryston is involved with the professional world of recording studios and the like, it builds its amplifiers to be bomb proof and probably tea proof too. I've been using a BP25 preamp for a couple of years now, on and off, and the worst that I managed to do to it is work a screw loose on the power supply lead's plug. The metal brick remote has survived many a stage dive off the listening vestibule and if you were to wipe off the dust the pre-amp would look as good as it did when it arrived here, at least I think it would.

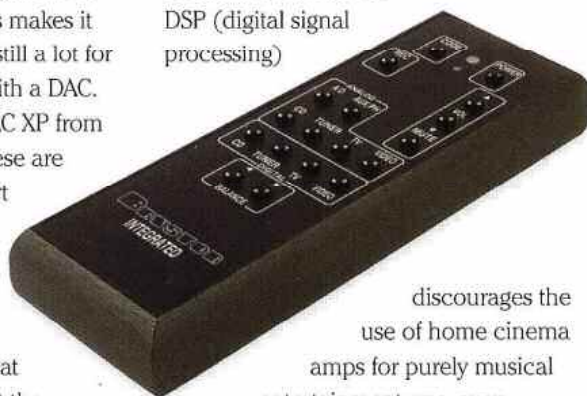
The new B-100 clearly comes out of a similar mould. The edges have been rounded off and the volume knob is more meaty and softer edged because this hefty integrated has what Bryston calls its C-series styling, but essentially this is a no nonsense battenburg-rejecting piece of amplification. It is also only the second integrated to come from this Canadian company. Some years ago it brought out the B-60 which looks a bit like the BP25 preamp but delivers 60watts from its slim carcass. This new integrated is a rather more substantial and costly creature with serious heat sinking on its flanks and onboard digital to analogue converters, with the requisite digital input socketry on the rear panel. It was launched in two versions, either an analogue or an analogue plus DAC amplifier, but demand for the non-converting model proved too low to warrant keeping it in production. So now there is just the one

B-100 and it costs £3,290 without a remote handset, which adds £450 (apparently and fortunately third party handsets can be programmed to run the amp) as would an MM phono stage if that were required. I guess with the likes of Mark Levinson, Krell and more recently Gamut offering integrations at even higher price points this makes it seem less excessive, but it's still a lot for a one box amp, even one with a DAC. But products such as the DAC XP from Cyrus would suggest that these are expensive to build in the sort of numbers demanded by the high-end, two-channel market place. Cyrus' pre/DAC costs over two grand on its own and that from a UK company without the burdens of shipping and import taxes.

The array of socketry on the B-100's rear end is almost enough to scare a home cinema enthusiast. There aren't that many actual line inputs (six) but the fact that there are four digital inputs via both of the popular connectors (electrical via S/PDIF and optical via Tos-link) and that the in and outputs are arranged either side of a central dividing line does mean you have to look twice before hooking up a pair of interconnects. I guess this approach is related to a dual mono architecture within but there must be more straightforward ways to do it without compromising results.

You can assign the digital inputs so that the connected component concurs with the front panel button; in other words if you connect your DAB tuner to digital input 2 the amp can be set so that it can be accessed from the tuner button

even though that input will function as a regular analogue line input as well. It has a pass-through feature for combining the B-100 with a multi-channel system, which effectively means using it as the power amplification for the front left and right channels. A useful feature that because the sound of DSP (digital signal processing)



discourages the use of home cinema amps for purely musical entertainment, yes, even expensive ones.

Other socketry includes pre-out and main-in via RCA phonos so you could use this solely as a pre-amp or a power amp if circumstances required it, and I guess this would also make bi-amping more straightforward. It has a pair of 12volt output triggers (one programmable, whatever that means) and an RS232 connector for external control and software upgrades. The front panel offers that increasingly rare facility – a headphone jack. As far as one can see there is no USB port for your iPod which some might consider an omission, albeit one that's common to all stereo amplifiers to my knowledge.

Under the lid you'll find an indication of just how serious this amp is in the three 'ultra low noise' mains transformers, one for each analogue channel and another for the digital section. You won't necessarily find

▶ two mains transformers even in power amps at this price. The op-amps are fully discrete, class A varieties rather than ICs which bodes well, as does the use of separate ground planes for analogue and digital sections.

As this is what Bryston calls an SST amp (I'm told this stands for "Super Stuart Taylor" but find that hard to believe!) it uses an "incredibly linear" Motorola transistor which is said not to require compensation for the usual problem of increasing distortion with rising frequency.



This device is also said to be extremely rugged and capable of surviving short circuits without distress, which could come in handy one day. It's also one of the reasons why Bryston feels confident enough to give a 20-year warranty on all but the digital electronics in the B-100. They are covered for five years which is itself pretty impressive.

The question this begs is would you want to listen to this amplifier for twenty years? It seems like a long time but it's not unusual to come across people who are still happily using kit they bought in the eighties (and sometimes the seventies for that matter) so clearly 'proper' hi-fi is far too well built. Not to mention so well cherished that it hardly ever ends up as recyclable waste that requires the maker to pay for its eventual disposal (see previous pieces

on the EEC's latest blunt instrument, the WEEE directive, for more).

But to get back to the initial question, I think the answer has to be positive. While it's hard for a reviewer to imagine listening to the same amp for more than a couple of months it's not difficult to envisage someone getting their musical gratification from this unit for a score years and more.

Why, well it doesn't have much character of its own so what you hear is more of the music, more of what the musicians and producers put onto the master tape and nearly all of what the mastering engineer put onto the final cut. It is highly responsive to variations

in the musical and sonic content of everything played through it. Cymbals have body and shine which is unusual for a solid state design, while double bass strings are bold and solid though not in an unnaturally muscular fashion as is sometimes the case with powerful amps. There's no shortage of girth either. The B-100 has little difficulty extracting decent bass from Living Voice OBX speakers. It would have been interesting to have tried a larger, more challenging speaker such as the B&W 802D that I have lined up for the next issue, but the planned crossover period was eliminated by both parties!

This strikes me as being a more open and transparent amplifier than

previous Bryston pre/power combos that have come my way. Maybe the rest of the system has got better, thus giving it a leg up the sonic ladder but I don't recall such low noise and all round clarity. Keith Jarrett's *Changes* LP sounding remarkably open and particularly fine. Even though it's a great recording not everything lets you know as much to this degree.

As it has so many digital inputs I gave a couple of them a try. With a Primare CD21 (\$800) there was a clear improvement over the onboard DAC and associated output stage. Transparency increased as did depth of tone while the overall sound got stronger to the extent that the player's own circuitry sounded veiled. The rather more capable

Townshend TA565 CD proved a harder nut to improve upon however. In fact with this £3,000 player the Bryston was not able to match the remarkably organic and warm homogenous sound coming in via its line-input. The amp's onboard conversion adding a fine digital edge that undermined some of the warmth and naturalness of the TA. But to put things in context this player costs nearly as much as the amp and is the best I've heard bar

none, so it would have been a shock if the result had been any different. That the B100 can even compete is impressive indeed.

I also spent many happy hours using the Bryston to convert the web radio stream emanating from my Apple G5 via Tos-link, stations such as Groove Salad and Secret Agent from the SomaFM site providing entirely listenable and occasionally engaging sounds at 128kbps. Even Podcasts, which I discovered over the summer, sound remarkably revealing considering their crude production and transmission quality. While the resolution of ▶

▶ webstreams might be low, with a decent DAC the result is never harsh and as a result you can hear the music well enough to know whether it's worth investigating further.

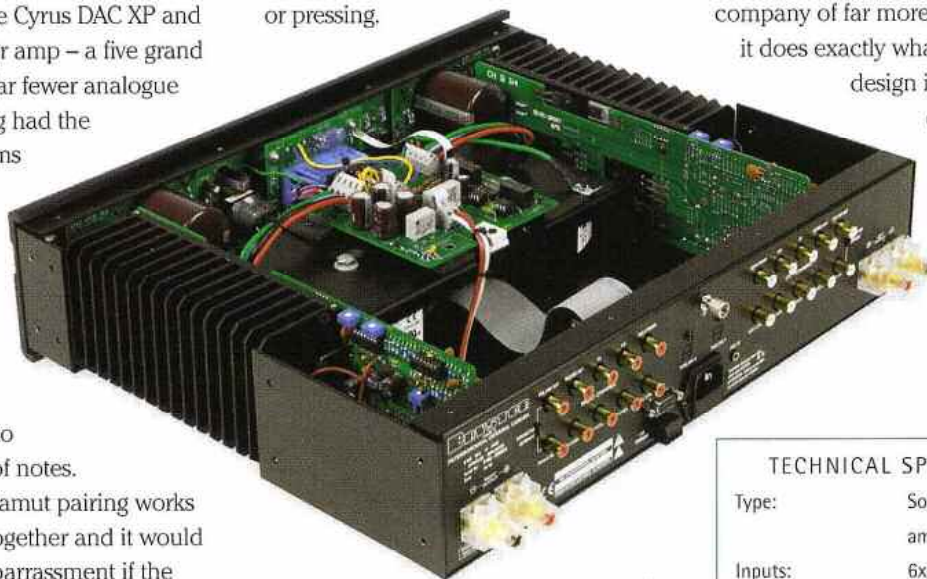
Another rather unfair comparison was made between the B-100 and a combination of the Cyrus DAC XP and Gamut D200 power amp – a five grand plus pairing with far fewer analogue inputs. This pairing had the upper hand in terms of openness and timing and made the Bryston sound a little up front and 'pro' style in the way it adds a slight emphasis to the leading edge of notes.

Again the Cyrus/Gamut pairing works surprisingly well together and it would have been an embarrassment if the integrated had undermined it.

On its own this is a highly gratifying and revealing amplifier, one that can reproduce the dynamic swings of a piece like 'Black Marigolds' by the Don Rendell/Ian Carr Quintet with ease, rendering the muted trumpet and plucking of the double bass with considerable realism. Pulling out a clear, strong and ultimately engaging sound from what is a slightly murky mix. It has a slightly graphic quality, with a hint of artificial delineation of the fundamentals but this does not stop it delivering considerable subtlety nor from producing realistic soundstaging.

Playing an old favourite in the form of Radiohead's *OK Computer* I was struck by the level of detail being delivered and the extent of the openness in this sometimes over-egged recording. The bass line on 'Paranoid Android' was rather clearer than usual while the lyrics on several tracks were a lot easier to follow. In fact vocals seemed to be generally easy to understand, from the absurd screeching of Geddy Lee on *Cygnus XI* (yes someone still listens

to this) to the spoken word on Underworld's *Second Toughest In The Infants*. Astral Weeks on the other hand, seemed a touch on the bright side but I don't play this as often as it warrants and that finding may well be a reflection of the recording or pressing.



I also hooked up a pair of the rather accomplished Revel M22 bookshelf speakers to this amp. The result was smooth, even and powerful, even grunty at times. Laurie Anderson's latest production (*Life On A String*) exciting the pairing to produce some genuinely meaty bass alongside solid, shapely imaging. There was no escaping the limitations of the CD-R nature of the software either, the system revealing a thick and slightly uncomfortable quality to the sound that is unlikely to be found on the original, which is something I'll have to get. Next to another fine integrated of the bodacious variety, ATC's SIA2-150, the Bryston is a little short on ultimate grip but pulls ahead in terms of finesse and subtlety, it's a more relaxed affair and probably more human at that.

This is clearly a fine and tremendously capable amplifier, both in terms of operational flexibility and sonic finesse. The price of the remote is off putting but it's a nice device from the hewn from solid school (which lights up really well in the dark) and there's

always the option of a Marantz/Philips programmable handset that would run the rest of the system as well. All in all it looks like Peterborough, Ontario's finest crafters of audio electronics have done another swell job with this latest integrated amplifier. Comfortable in the company of far more costly separates,

it does exactly what an integrated design is supposed to, delivering superior performance without the fuss and the extra on the price-tag. ▶+

TECHNICAL SPECIFICATIONS

Type:	Solid-state integrated amp with internal DAC
Inputs:	6x line-level RCA/phono 2x Tos-link optical, 2x S/PDIF RCA/phono 1x power-in RCA/phono
Phono-stage:	MM (Optional extra at £450)
Outputs:	1x pre-out 2x tape-out Headphone jack
Rated Power Output:	100 watts per channel 8 ohms, 180 watts 4 ohms
Warranty:	20 years (digital circuits 5 years)
Dimensions (WxHxD):	430x121x406mm
Weight:	13.6 kg
Finish:	Silver or Black
Price:	£3,290 Optional Full Function Remote £450

Distributor:

PMC
Tel. (44)(0)870 4411044

Manufacturer:

Bryston Ltd
Net. www.bryston.ca