

# BRYSTON

A Lifetime of Music

MEMO: To All Bryston Customers

SUBJECT: Bryston BDA-2 DAC Review From Germany

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Test: Bryston BDA-2 DAC

Canadian Competence

The professional audio realm has its own demands. Here technical and tonal quality is of primary importance, while the appearance is of little concern. But does one want to use such components in the home? One does if the name Bryston is displayed on it.

A famous maxim which one hears again and again from engineers is “form follows function.” This nice phrase just merely expresses that with technology the internal values are those that count not the outer ones. As an inclined HiFi enthusiast one can opine about this as one wants, but after all one must look at the components one uses at home on a daily basis. However there are manufacturers who have subscribed to this creed, and by means of



cleverly thought out technology and good development work achieve the best possible tonal results, while during the design phase of the components they concentrate on ease of operation. The Canadian Firm Bryston clearly belongs to this group of manufacturers. Professional use products as well as systems for daily use in the home originate here. No matter for which realm work is being done, all Bryston design engineers are instructed, independent of design requirements, to develop the technically best possible product.

One of these products is the BDA-2 D/A Converter, and already on its outside one can see that we are dealing with serious electronics. Here there are no bells and whistles or optical gimmickry, but rather substantial audio technology. Substantial is also appropriate for the cabinet because despite the rather light components inside, the entire BDA-2 weighs almost eight kilograms, which is quite ample for a D/A Converter.

Besides the comparatively thick metal panels which form the actual cabinet, this number can surely be explained because of the massive front panel which projects above the top and below the bottom of the cabinet. Exactly this front panel then also avoids that the BDA-2 does not simply look like a clumsy, metallic lump, because its outside is indeed endowed with a trace of finesse, because the lightly rounded off corners remove some of the hardness from its visual effect.



But with a view of the existing controls it already goes somewhat unceremoniously to the nitty-gritty. Eight status LEDs and ten pushbuttons find room on the component, and every element is responsible for exactly one function. So that one does not lose any time with guessing or with the study of the instruction manual for the identification of these functions, all elements are equipped with the appropriate designation. Six of the pushbuttons serve for choosing the desired input, whereby the BDA-2 does not only glisten simply with the number but also with its wealth of variants.

Data can be transferred either via two optical Toslink inputs, or via an XLR plug per AES/EBU. Additionally there are four S/PDIF inputs of which two are for coaxial cables with RCA connections, and two for BNC bayonet connections. Here again Bryston's experience in the professional realm show up, because with newer media servers or streamers BNC connections are quite rare. Considerably more modern is the USB-B socket which is also present. Thanks to the multitude of connections one would have difficulty finding a component that cannot be used with the BDA-2 D/A Converter.

No matter which input one uses, the maximum possible sampling rate is always 192 kHz, even with the optical inputs. Besides that at Bryston one really dislikes to depend on the spadework of others, and therefore every digital signal that is received by the BDA-2 D/A Converter is newly timed by its internal clock in order to counteract the reviled jitter.

From the Japanese manufacturer AKM two AK4399EQ-DAC-Chips, which in the BDA-2 offer a maximum bit length of 24 bits, are responsible for the concluding conversion of the incoming signal. These are located directly before the analog output stage of the Converter, which in this case is a discretely built-up Class A module. At the same time the digital and analog sections of the BDA-2 D/A Converter are supplied with current independently from each other. Yes, here one works technically on a very high niveau, where every possible distortion factor is considered and thought about. **Exemplary.**



Another of the eight pushbuttons on the front serves to actuate the synchronous upsampling in order to help the technically less than perfect input signals. Synchronous here means that the BDA-2 D/A Converter is working with multiple whole



numbers, so that signals with 44.1 kHz Or 88.2 kHz are upsampled to 176.4 kHz, while music with 48 kHz or 96 kHz is upsampled to 192 kHz. Thus during the conversion the most optimum result is achieved at all times. For every used sampling rate, whether with or without upsampling, one of the eight LEDs is available, and a value is always assigned to it.

Tonally the Bryston BDA-2 D/A Converter sounds as would be expected: The Converter generates the converted music very neutrally and detailed. This helps positively with jazz, as well as rock, and even with rap, whereby the good dynamic range and the generally very flowing playing of the BDA-2 prevents it from sounding too digital. Music of CD quality with enabled upsampling sounds still a tick more spatial than without, but the effect is limited because even without upsampling the music already sounds decidedly good. It once again proves that one should not judge things by their appearance. So perhaps Bryston's BDA-2 D/A Converter is not an absolute eye catcher, but there is absolutely nothing lacking in technical finesse.

**“Bryston's BDA-2 is an outstanding D/A Converter, which brings all the strength of professional audio reproduction to the living room. Those who are more interested in excellent sound rather than in unusual appearance have come to the right place”**

Philipp Schneckenburger

*Translated from the German by Peter Ullman*