



## BRYSTON BDP-2 AND BDA-2

Long known for its amplifiers, this storied Canadian company has branched out into loudspeakers in a big way, and now into the source, the one other link in the chain. The Bryston CD player is discontinued, as are most CD players today, but what you're looking at on this page is a better source than any CD player. It's a digital player, backed by a digital-to-analog converter.

The converter, usually called just a DAC, has become a familiar audio component. If you've incorporated a computer or some other digital component into your music system, you need to convert the digital information — a string of ones and zeroes — into an analog signal that can be amplified and fed to a loudspeaker. That much we know, but what *is* a digital player? What can it do that a computer cannot?

Nothing. And yet...

In *UHF* No. 95, we published a long article on using a dedicated computer as a music source. We ourselves have adopted such a computer, a Mac mini, and it is making glorious music for us.

So what more is Bryston bringing to the table?

This is a two-part review. The BDA-2, the lower unit in our photo, is a DAC, much like the DAC we use in our reference system. We will see, in good time, how it compares to the one we use. But first, we will take a critical look at the two units you see here, starting with the BDP-2 digital player.

### The digital player

If you expect the BDP-2, or any other digital player, to replace either a CD player or a computer as a music source, you'll be wondering where the slot for the CD is. And where the browser window is for downloading files. In fact you still need a computer for these tasks, so what's the player for?

It may not be obvious, but the BDP-2 *is* a computer, running the open-source Linux operating system. Unlike the Mac mini we use as a playback machine, however, this slim Bryston unit has only one piece of software aboard. That software's purpose is playing music.

Of course, the assumption is made

that you *do* have a general-purpose computer, running Mac OS X, Windows or Linux. That's the computer you will be using to rip CDs to your hard drive and download music files from any of the well-known Internet sources. Perhaps you already do. That computer need not be positioned next to your music system, however, and potentially it need not even be in the same *city*.

On page 44 you can see the rear panel of the BDP-2 (it's the top unit). Among the inputs included is a pair of Ethernet ports. Ethernet is a network standard originally developed by Xerox, which has evolved over the years into a fast, versatile way of connecting electronic gear. An Ethernet cable probably connects your Internet modem to your main computer. If you have a networkable printer, it too will be connected by Ethernet. Unlike USB, Ethernet can tolerate very long cabling, and that cabling is, by high-end audio standards, startlingly inexpensive. You can run it under carpets or in the wall. Indeed, that's what modern offices do. The Ethernet connection can be used to

bring in data from a remote computer. It can also connect to a hard drive on your network, known as an NAS (network-attached storage).

But there are other possibilities. The back of the player also includes four USB ports and an eSATA port. All can be used to plug hard drives into the rear of the unit. Compact hard drives are inexpensive. You can plug one into a port on your computer, transfer your music onto it, and then move it to the Bryston. Easy. The drives need to be formatted in FAT32, an older format that used to be the standard in the Windows world.

In fact, Bryston has done something very clever. Unlike an amplifier or speaker, say, even the best-designed digital player requires some work to set up, and when you've just gotten an expensive purchase home and you're eager to hear it, you might be a little impatient. After all, you've spent a pretty penny, and you have yet to hear a note. So here is what Bryston has done. It has included a USB flash key loaded with music. Plug it into a USB port, either on the rear or on the front, and use the front panel controls to play it. Brilliant.

You'll probably want a more convenient way to play your music, however. Just download the dedicated Bryston play software for your phone, your iPad, or a number of other devices, and your music will be at your fingertips. The internal playing software, by the way, is called Manic Moose. What's not to love?

The BDP-2 is not a complete music source, of course. Its outputs are all digital, and you need a DAC to convert its signal to analog. You can use any DAC you want. In this review, we used the matching BDA-2 unit.

For this part of the session, we listened to five music selections from our Mac mini computer, connected to our reference DAC with its outboard USB circuit. We then listened to the same music on a USB hard drive plugged into the BDP-2. We used the same Mavros digital cable between the player and DAC. We had to add a BNC adapter for the player, because it doesn't have the usual phono output jack.

The first selection was Rimsky-Korsakov's *Dance of the Tumblers*, a high-resolution (24/176.4) file from

## BALANCED AND UNBALANCED



The balanced outputs use a three-pin "XLR" connector. It is supposedly better. Is it really?

The typical unbalanced cable uses just two wires, a central wire, and a coaxial shield. The shield, which is connected to ground either at the power line or at the chassis, carries one side of the audio signal, and it also protects the central wire against hum and other induced noises. Some cables include two signal wires, with the shield connected to only one side, and therefore carrying no signal. The symmetry of such a cable is an advantage, obviously. It is sometimes billed as *quasi-balanced*, which makes it sound better than it is. We prefer the term *pseudo-balanced*.

A true balanced cable uses three wires: a ground and two signal wires, but it is connected in a different way. The ground is always at 0 volts by its nature. When the positive wire is at, say, +3 volts, the negative wire will be at -3 volts. They are, therefore, balanced.

Here's the rationale. Any outside noise will be induced, we can assume, into both signal wires equally. When the signal is reconstituted by a matrix at the output, the two signal voltages will now be in step, but the noise signal will be out of step, and it will cancel out.

Balanced cabling is *de rigueur* in a studio, where a lot of equipment is connected via long lines. Balanced cabling also avoids hum loops, caused by the connecting of audio gear via more than one path.

Because Bryston sells its products to the pro market as well as audiophiles, it gets balancing right. Not everyone does. Some "balanced" circuits are not correctly balanced, because the designer is unclear on the concept, and knows only that balancing is a feature that marketing has requested. Worse, balancing is sometimes accomplished by adding an extra circuit, often a mediocre op amp chip. In such products, the unbalanced circuit is preferable.

Reference Recordings. This very lively orchestral piece sounded a little more distant with the Bryston pair, therefore de-emphasizing the bottom end impact and the smaller wind and percussion instruments. "The difference is interesting," said Toby. "Our reference DAC is about voltage, but the Bryston pair is about current. It's wider, more relaxed, with more space and separation. Each instrument has more of a place on the stage."

All three of us noted the rhythm. Lots of digital systems get it wrong. The Brystons don't.

At this point came a reminder: we

The Bryston DAC reviewed here has, like many other high-end components, two sets of outputs. The unbalanced outputs use the familiar "phono" coaxial connector, also known as the "RCA" connector, for the company that may have originated it.



were not yet comparing the two DACs. We were comparing the Bryston player and DAC to our Mac mini and our own DAC. That seemed appropriate, though in general we try to minimize the variables when we listen.

The other selections were uncompressed Red Book format (16/44.1) files, ripped from CD. The first was the classic *Cantate Domino* (Proprius 7762CD), for organ, brass and choral voices. Though this celebrated recording exists on LP and SACD, even the CD sounds astonishing.

This time there was *plenty* of bottom end, and the organ pedals were repro-



duced with great authority. The sound was spacious, as it always is on a system of this caliber, but we disagreed on the overall sound. Gerard praised the clean and realistic timbres. Toby liked the extra detail in the organ notes, and the clarity of the tenor voices, but was less impressed by a certain harshness and confusion on the final vocal passage. Steve was even more critical. “I thought the music was smeared, large, loud and forceful, but it was lacking in definition. I didn’t like it.”

We continued with the other truly famous Proprius choral recording, *Now the Green Blade Riseth* (PRCD9093). This time Gerard was frowning, finding reduced separation of the choral voices and instruments. Steve praised the vast space with both versions, and enjoyed the 3D aspect of the voices, and especially the male voices. Toby thought the BDP-2 provided better differentiation of the voices, and more breathiness in the solo flute. “There’s a difference in sound quality,” he said, “but not in musicality.”

Our third selection is a stunner, in both sonic and musical terms: Norman Dello Joio’s *Fantasy on a Theme by Haydn*. It’s written for wind band, with brass, woodwinds and percussion that could blow a hole in your wall.

Once again we didn’t quite agree, which perhaps calls into question whether the difference is all that significant. We all liked the tremendous impact of the opening, of course. Gerard liked all the rest too, including the detail in the woodwinds and the powerful rhythm. “No criticism from me,” he said.

Toby and Steve were less sanguine. “The timbres lacked the clarity and richness,” said Steve. Toby said that, with our own reference, he thought how

pleased Haydn might have been to hear this version of his theme. “I was less interested this time,” he said, “though the two versions are close in quality.”

Of course we wanted to include a female voice, as we usually do. It was that of Carmen Lundy, singing *’Round Midnight* (it’s on her album, *Self Portrait*, JVC jvcxr-0005-2). As with some of the other selections, we were split. It was good, but...

Gerard thought the massed string introduction had lost a little of its fullness. “But her voice is still expressive, and the emotion is all there. Those sometimes troublesome sibilants are exemplary.”

Toby, on the other hand, enjoyed the piece less with the BDP-2. “She sometimes seemed to be too close to the microphone,” he said. “I pay attention to that sort of thing.” Steve found the solo saxophone somewhat shrill, but liked both the strings and Lundy’s voice. “I preferred this version,” he said.

Conclusion? The argument in favor of any digital player of this sort is con-

venience. It’s a computer on which you run only the program supplied with it. There’s no need to have a Web browser, graphics software or esoteric settings. Can such a device sound good? It certainly can. Any sonic difference between the BDP-2 and the Mac mini was not great enough for us to be unanimous, as we usually are.

When we asked to review the BDP-2, we knew that another, cheaper model, was on its way. It’s now out. It’s called the BDP-1USB. As its name suggests, it has only USB connectivity, no Ethernet, coaxial or XLR. We have not heard it, but we have no reason to suppose that it will sound less good.

### The BDA-2 DAC

This new version of Bryston’s digital-to-analog converter is certainly full-featured, with a full range of digital inputs as well as both coaxial and balanced outputs. It can handle all of the currently popular formats, including WAV, AIFF (the Apple uncompressed format), FLAC, MP3, M4A and OGG Vorbis. It does Apple Lossless too, though curiously that isn’t on Bryston’s list. It can also decode DSD (Direct Stream Digital).

We have in the past expressed disappointment that many DACs don’t come with remote controls. Bryston may be assuming that you will be using only one of the DAC’s many inputs. You can order an optional infrared remote, and there are connections for third-party control systems, such as Crestron.

In this part of the review, we returned to our Mac mini as a source, and connected it to the Bryston with our BIS USB cable. We were of course comparing it to our current reference, a Moon

## SUMMING IT UP...

**Brand/model:** Bryston BDP-2 digital player

**Price:** C\$2,995

**Size (WDH):** 43.2 x 29.2 x 7 cm

**Inputs:** 2 Ethernet, 6 USB, 1 eSATA

**Outputs:** SP/DIF (coaxial with BNC connector), AES/EBU

**Most liked:** Thoughtful design, very good performance

**Least liked:** Unbalanced digital output is BNC-only

**Verdict:** A computer that thinks it’s an audio component



300D converter and a Stello USB interface, linked with an Atlas Mavros digital cable. We began with a high-resolution (24/176.4) selection we had used in the first session, Rimsky-Korsakov's *Dance of the Seven Veils*.

The BDA-2 rendered it wonderfully well, reproducing with convincing clarity the vast space and the considerable energy. The bottom end (and Reference Recordings engineer Keith O. Johnson knows how to capture lots of it) was excellent. Gerard noted the delicious warmth of the viola, which gets a brief solo role.

Was the piece substantially better than it had been with our reference? Steve thought it was, praising the clear timbres and subtle decays of the instruments, and he was sorry when it ended. Toby liked the castanets and the tambourines, though he found them more discreet. He thought the two DACs were very close in sound, and he reserved judgement.

The second selection, from Fidelio, was also high-resolution: 24/96. It was a swing jazz version of *I Fall in Love Too Easily*, played by the Manouche String Quintet.

Toby enjoyed what the Bryston did with the music. "I enjoy this recording

for presenting music that seems to be in a real space," he said. "With the Bryston I wasn't as close to the instruments, and that may actually be good. There was another difference too. With the Bryston, I concentrated on the guitar, whereas with the Moon it was the sax that stood out. I don't know whether that's significant."

Steve had a different take, particularly liking the saxophone as reproduced by the Bryston. "I thought it was closer and more authentic. There was improved density and definition of the bass. The horn was better too."

Gerard had listened especially to the rhythm, an essential element of swing

music, because some digital systems get it wrong. The Bryston doesn't.

Once again we wanted a female voice, and what better choice than Margie Gibson? We selected *Soft Lights and Sweet Music* from her Sheffield album, *Say It With Music*.

The Bryston really demonstrated what it could do. "Right from the first notes," said Gerard, "the piano is powerful, and yet it's totally natural. Margie's phrasing is clear and perfect. The pauses have magic, nothing less."

Toby and Steve agreed. "There was better resonance, yet the soft passages were softer, as they should be," said Steve, "and the cello was richer." Toby thought the illusion we strive for, that of a living, breathing person in the room with us, was stronger. "The piano, bass and cello were in perfect proportion," he added.

When the session was over, Steve went shopping. Yes, at Bryston.

DACs of all prices are flooding the market, but price never tells the whole story. Some of the poorest are at least low in cost. Others are breathtakingly expensive, and yet they don't deliver. This one does. Even if you have a very good system, as we do, we think you'll love the Bryston.



## SUMMING IT UP...

**Brand/model:** Bryston BDA-2 DAC

**Price:** C\$2,395

**Size (WDH):** 43.2 x 29.2 x 7 cm

**Inputs:** USB, SP/DIF coaxial (2), SP/DIF BNC (2), AES/EBU, optical (2), SP/DIF digital bypass

**Outputs:** Balanced, coaxial

**Most liked:** Excellent performance

**Least liked:** No standard remote

**Verdict:** Compact in size, gigantic in musical delivery

## CROSSTALK

We're reviewing two different products here. The Bryston player sounds excellent—no surprise, because I've heard it sound that way in show after show. But it isn't better than our computer, and I'm enough of a techie that I can pass on convenience. Not everyone feels that way, and Bryston has made the BDP-2 convenient enough that you can set it up (or have your dealer do it), and then forget it.

The other product under review is, of course, the Bryston DAC. It's superb, delivering the magnificent musical performance I expected, or at least hoped for.

—Gerard Rejskind

Like a lot of other fans of quality music reproduction, I have moved away from the CD player and into the wonderful world of computer-based audio. Along the way, I fig-

ured out that the DAC is a really important component in this new digital soundscape. So I wanted to know more about the new Bryston twosome, and in particular, the BDA-2.

I liked the look of this team of two immediately, especially their simple symmetry and even the discreet green lights on the faceplates.

The very good news is that the Bryston DAC translated the digital signals into music of the highest quality, as good as the reference could do.

The bad news is that...there isn't any bad news.

—Steve Bourke

Would I swap my computer-based setup for this clean-looking Bryston pair? Well, music is only part of the question.

The music sounded very good, of course, really all you should expect from a modern digital source. The orchestral pieces had impact, a wide, deep soundstage and fine detail, and the kicker—Margie Gibson singing—was so human and nearby-sounding that it seemed to me the reference DAC had to admit it was outclassed. Digital conversion has come a long way.

But the other side of the question is convenience. My Mac mini system was tweaky to set up and can be fussy to maintain. The Bryston pair appears to be somewhat simpler to use, and it plays hi-res music files with ease.

Well then! Not everyone likes tweaking and fussing as much as I do, and so I would say that Bryston has caught the wave of the future.

—Toby Earp