

# BDP-1

BRYSTON DIGITAL PLAYER

*fuel for the senses*



# ACCURATE AND FAITHFULL REPRODUCTION



## PREAMBLE

We have entered a new age of musical enjoyment—an ability to faithfully reproduce recorded music with more accuracy than ever before. Thanks to recent developments in high resolution computer readable formats, the finest recordings imaginable can now be easily distributed as downloads, on DVD discs, or even USB style drives to anyone with the desire for the ultimate playback experience.

Most digital playback systems incorporate an all-in-one approach, where the computer houses the operating system (EX: Windows or Mac), the video interface, the CD ripper/player, the motherboard, the soundcard and the DAC's contained all in one chassis. Think of this single-box methodology as more akin to an audio receiver rather than the more performance-oriented approach of using separate audio components optimized to perform fewer tasks more precisely.

Although the receiver approach is an easy solution, the performance often suffers due to various forms of noise and distortion that are unavoidable in any all-in-one solution. Computers are no different—while they may be great for locating and downloading content, they are far from the ideal playback device.

## BRYSTON BDP-1

The Bryston BDP-1 is the world's first dedicated player for high resolution digital files. Our objective was to isolate each critical stage of the playback process using the highest quality components available within a single function device. The BDP-1 separates the digital processing side (playing music files) from the data management side (storage, handling, ripping etc) in order to deliver the most quiet, lowest distortion playback option available. The Bryston BDP-1's single function is to play high-resolution digital music files from any USB storage device without compromise. The BDP-1 does not contain a hard-drive (no moving parts), a streamer, a CD player/ripper, a router or noisy fans. The Bryston BDP-1 Digital Player is also much easier to operate than a typical multipurpose desktop interface.



## DEDICATED PERFORMANCE



At the core of the BDP-1 is a Linux operating system optimized to provide the highest quality audio performance. Bryston has employed an industrial quality main board that only uses a small fraction of its computing power under any operating conditions. Mated to this robust operating system is a Bryston-modified soundcard of the highest quality, featuring an AES-EBU Balanced and BNC (spdif) output section for the highest possible performance when connected to the AES-EBU, BNC or COAX input on the Bryston BDA-1 external DAC. Bryston has also incorporated electronic isolation of all audio components from computer components within the device and has employed galvanic isolation to prevent charge-carrying particles from migrating within the BDP-1.

The Bryston BDP-1 focuses solely on playing high resolution files and will support 16 and 24-bit word lengths and 44.1, 48,

88.2, 96, 176.4 and 192kHz sampling frequencies.

The BDP-1 accesses these digital files from any USB device – either thumb-drive or hard-drive.

The BDP-1 Digital Music Player delivers superb playback performance for files of all resolutions. It reproduces the digital content in its native sample rate and bit depth and outputs the data stream to the Bryston BDA-1 external DAC through a high performance dedicated AES-EBU balanced XLR output or BNC/COAX (SPDIF) connector. It processes digital music files at a performance level unattainable with other playback solutions.



# BDP 1 DIGITAL PLAYER

## TECHNICALLY SOPHISTICATED



### HOME NETWORK OPTION

The BDP-1 is a technically sophisticated component that can be controlled by a variety of graphic interface devices (laptop, Netbook, PC, PDA, iPhone™, iPod touch®, iPad™, etc.) via your home network. Control of the BDP-1 can be enhanced using devices that feature rich, graphic presentation. To be clear, the BDP-1 can be controlled via network enabled devices, however the BDP-1 does not stream music over the home network. The network is ONLY used to access your music library from a remote device. This approach bypasses the limitations inherent in streaming high-resolution digital files, especially over a shared network at home. Bryston also has its own interface (MINI) loaded on the BDP-1 as well as a computer web-browser interface (MAX). The BDP-1's graphic interface operates under open source software protocols, ensuring long term future compatibility with the widest range of new digital devices as they come to market.

### DIRECT OPTION

The BDP-1 can also be operated outside the home network by simply utilizing the buttons and two-line graphic display located on the front panel of the BDP-1. You can also access the basic functions of the player using the Bryston BR-2 remote (Play, Pause, Stop, Next and Previous). So with the BDP-1 you DO NOT have to be on the network to play your songs. You can do basic navigation of the USB drive(s) using the display and front panel controls. You can open folders and choose songs to play. Once you become comfortable with the operation of the BDP-1, you can select a network-based interface to best suit the preferences of each user.

# BDP 1 DIGITAL PLAYER

## REDEFINING INNOVATION

### ON THE INSIDE

Internally the Bryston BDP-1 music player employs a fanless motherboard with an integrated processor and flash drive memory. It runs an extremely pared down embedded version of the “Linux” operating system (as opposed to Windows or Mac OS). It boots in read-only mode so you cannot accidentally or purposely cause a system failure. It employs a very high quality Bryston modified digital soundcard capable of native resolutions all the way up to 192/24. The output section is a specially designed interface to allow state of the art digital connections between the BDP-1 Player and the Bryston BDA-1 external DAC utilizing either AES-EBU or BNC connectors.

The Bryston BDP-1 Digital Music Player uses any direct coupled USB (thumb drive or hard-drive) “storage source” and can play all high resolution FLAC, WAVE and AIFF files up to and including native 192/24 bit files. Music must be ripped using a different computer running any operating system and any ripping program the end user is comfortable with. Playback can be controlled via numerous methods. A popular option will be the iPod Touch, iPad or iPhone, a web browser such as Mozilla Firefox or the front panel controls on the BDA-1 digital player or basic functions using the Bryston BR-2 remote. Or of course the Bryston embedded MAX or MINI software interface.

In conclusion, the easiest way to understand the Bryston BDP-1 Digital Music Player is to think of it as an 21st century updated CD player. Instead of CD’s as the music source though it utilizes USB thumb drives or USB hard-drives as the music storage source. For example you can use a large 500GB USB hard-drive which is permanently connected to the BDP-1 for mass storage of your music and then use a number of smaller 8-16GB USB thumb-drives to create specific play lists – one for Jazz, one for Classical, one

for Rock etc. and insert them into the BDP-1 as you wish. Also your friends can come over with their favorite songs loaded on their personal thumb-drives and listen as well.

The Bryston BDP-1 is designed to interface between your “music library” and a high quality external DAC (preferably the Bryston BDA-1). The “component” chain works out as follows:

- **The Bryston BDP-1 Player accesses the digital files from a USB thumb drive or USB hard-drive**
- **The USB device transfers the stored digital music content in its native sample rate and bit depth into the BDP-1 Digital Player**
- **The BDP-1 processes these music files at a state of the art level from 44.1/16bit all the way up to 192K24/bit**
- **The BDP-1 outputs the data stream to the Bryston BDA-1 external DAC through a high performance dedicated digital AES-EBU XLR Balanced connector or BNC/COAX (SPDIF) output.**

Playing high-resolution digital files (96/24, 176/24 to 192/24) without issues (dropouts, hiccups etc) is not as simple as it sounds. The CPU, soundcard and digital interface and output stage to the external DAC are critical in extracting as much quality and performance as possible. The Bryston DAC continues this focus on function specific design, again concentrating on doing the specific task well. This Bryston combination of BDA-1 External DAC and BDP-1 Digital Player will provide you with a state of the art high-resolution music playback system.

# BDP 1 DIGITAL PLAYER

## HIGH RESOLUTION



BDP-1 REAR PANEL

### SPECS

- File Types: FLAC - WAV - AIFF
- Output Sample Rates: 44.1K - 48K - 88.2K - 96K - 176.4K - 192K
- Jitter: Master Clocks standard deviation less than 20 picoseconds 10 Hz to 10 MHz \*
- Acoustic Noise: Silent
- Output Impedance: BNC 75 ohms, AES/EBU 110 ohms  
(Analog domain specs below are not really applicable to a digital source device)
- THD: N/A
- Channel Separation: N/A
- Signal to noise ratio: N/A
- Dynamic range: N/A
- Power Consumption: around 10 watts.
- Dimensions: W (17 or 19) x D-11 x H-2 3/4 inches
- Weight: 12 lbs, 5.44 kg



BR2 REMOTE

\*Jitter: the composite jitter and phase noise spectrum is a function of both the Player and DAC as a system. The individual components contribution to the overall result is difficult to predict and are mostly defined by the receiving circuit of the dac.

# BRYSTON WARRANTY

In a world where most things seem to need frequent upgrading, repair, or replacement, how can Bryston offer a comprehensive, unconditional, and fully transferable warranty on every audio product we make?

The answer would quickly become apparent if you were to tour Bryston's plant in Peterborough, Ontario, Canada. State-of-the-art design facilities, with the latest CAD and circuit simulation software, and an inventory of some of the best and most reliable parts on the planet, combine with a manufacturing philosophy that eschews the artifacts of mass production — robots, moving assembly lines, and, frankly, shortcuts. Every Bryston audio component is handcrafted by people who take great pride in building the very best. Starting with a bare circuit board, for example, each component is hand selected and installed, every wire is cut and bent by hand, every connection is hand soldered. On average, it takes thirty to thirty-five person-hours to assemble a single Bryston product. Is this just some romantic 19th-century notion of the artisan-craftsman, or is there a real benefit to you, the consumer? There is. Take the hand soldering, for example. We could do the job much faster by employing wave-soldering machines as many companies do. But that would mean exposing the entire circuit board to a molten-metal bath, a source of extreme heat shock that could result in long-term reliability problems.

We don't skimp on testing or rush our products through some last-minute go/no-go check; at every stage individual

parts, completed circuit-boards, sub-assemblies, and final assemblies are all put through rigorous inspection and testing procedures. When completed, every Bryston amplifier receives a comprehensive and carefully documented test of all its functions, and the printed results of this computer-aided analysis are actually packed and shipped with each unit. During this intensive procedure, we not only reject any product that falls outside of our advertised specifications, but also any not meeting an even narrower band of specifications that we use for internal testing. As a result, you can expect each Bryston product to perform at least twice as well as the advertised specifications.

Our 20-year amplifier and 5-year digital circuit warranty drives us in a different direction from the typical manufacturer. We consider a Bryston product to be a mutual investment: by you, in an amplifier of lasting quality, and by us, in that we invest in the quality of the product in order to be secure in offering our warranty. It simply makes good economic sense to produce the very best products we can.

As a result, it can be said that we don't just make amplifiers — we also make friends — extremely satisfied customers who become life-long evangelists for Bryston's philosophy and tell their friends about our products.

The logo consists of the word "BRYSTON" in a bold, uppercase, sans-serif font. The letter "B" is stylized with a vertical bar on its left side. The text is white and set against a solid black rectangular background.



**Canada's largest independent manufacturer  
of high-end audio electronics for consumers and professionals  
Founded 1962**

Bryston Limited P.O. Box 2170, 677 Neal Drive, Peterborough,  
Ontario, Canada K9J 7Y4 1-800-632-8217 [bryston.com](http://bryston.com)

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