

# BRYSTON

## **BUC-1**

**DIGITAL-TO DIGITAL  
CONVERTER**

## IMPORTANT SAFETY INSTRUCTIONS



The lightning flash with arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of un-insulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus when moving it & during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



**WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.**

**DO NOT EXPOSE THIS EQUIPMENT TO DRIPPING OR SPLASHING AND ENSURE THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, ARE PLACED ON THE EQUIPMENT.**

**TO COMPLETELY DISCONNECT THIS EQUIPMENT FROM THE AC MAINS, DISCONNECT THE POWER SUPPLY CORD PLUG FROM THE AC RECEPTACLE.**

**THE MAINS PLUG OF THE POWER SUPPLY CORD SHALL REMAIN READILY OPERABLE.**

**UNPLUG MAINS CORD DURING TRANSPORTATION.**

## BRYSTON LIMITED WARRANTY

Bryston analog audio circuits are warranted to be free from manufacturing defects for twenty (20) years from the original date of manufacture. The warranty includes parts and labour.

Bryston Digital circuits and cables are warranted for five years from the original date of manufacture. The warranty includes parts and labour.

Bryston products having motorized moving parts, excluding motorized volume controls, are warranted for three years from the original date of manufacture. The warranty includes parts and labour.

Bryston will remedy the problem by repair or replacement, as we deem necessary, to restore the product to full performance. Bryston will pay only return shipping costs for the full length of the specific products warranty.

In the event of a defect or malfunction, contact Bryston’s repair centers for return authorization. Products must be returned using original packaging material only. Packing material may be purchased from Bryston if necessary. This warranty is considered void if the defect, malfunction or failure of the product or any component part was caused by damage (not resulting from a defect or malfunction) or abuse while in the possession of the customer.

Tampering by persons other than factory authorized service personnel or failure to fully comply with Bryston operating instructions voids the warranty. This warranty gives you specific legal rights and you may also have other rights which may vary from province to province and country to country.

As of 2006-02-22 Bryston will only warranty Bryston products purchased through authorized Bryston dealers. Bryston products with a date code of 0608 or higher (date code format is “yyww”, where “yy” is the two least significant digits of the year and “ww” is the week of the year) must be accompanied by a copy of the bill-of-sale from a Bryston authorized dealer to qualify for warranty service. The warranty is transferable from the original owner to a subsequent owner as long as a copy of the bill-of-sale from the original authorized Bryston dealer accompanies the re-sale. The copy of the bill of sale to any subsequent owner need ONLY include the Name of the Bryston Authorized Dealer and the Model and Serial number of the Bryston product. The warranty will only be honored in the country of the original purchase unless otherwise pre-authorized by Bryston.

### **BRYSTON SERVICE in CANADA:**

Postal address: **P.O. BOX 2170, Stn. Main  
PETERBOROUGH, ONTARIO  
CANADA K9J 7Y4**

Courier address: **677 NEAL DRIVE  
PETERBOROUGH, ONTARIO  
CANADA K9J 6X7**

PHONE: 705-742-5325  
FAX: 705-742-0882  
E-mail: [cdnser@bryston.ca](mailto:cdnser@bryston.ca)

### **BRYSTON SERVICE in the USA:**

**79 COVENTRY ST., Suite 5  
NEWPORT, VERMONT  
U.S.A. 05855-2100**

PHONE: 802-334-1201  
FAX: 802-334-6658  
E-mail: [usaser@bryston.ca](mailto:usaser@bryston.ca)

### **BRYSTON SERVICE outside Canada and the USA:**

contact your local distributor or

CHECK OUR WEB SITE:  
E-MAIL BRYSTON DIRECTLY:  
FAX BRYSTON DIRECTLY:  
PHONE BRYSTON DIRECTLY:

[www.bryston.ca](http://www.bryston.ca)  
[cdnser@bryston.ca](mailto:cdnser@bryston.ca)  
01-705-742-0882  
01-705-742-5325



# **BUC-1 Digital-to-Digital Converter**

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## FEATURES

The Bryston BUC-1 is a state of the art USB digital-to-digital converter with a USB input and three different digital outputs; BNC, Co-axial & 3 pin XLR(male). The BUC-1 supplies clocking signals to the USB source device (e.g. personal computer) to ensure a proper synchronized data stream

### Features of the BUC-1:

- USB Audio Class 2 input (192KHz/24Bit asynchronous)
- USB drivers supplied on flash memory (thumb drive)
- Linear power supply
- Sample rates: 44.1KHz, 48KHz, 88.2KHz, 96KHz, 176.4KHz, 192KHz
- Transformer coupled SPDIF and AES/EBU Digital outputs.
- SPDIF Output (via CoAxial RCA/phono jack and BNC connector)
- Remote On/Off Control Trigger input, 12 Volt
- Compatible with CD Drives, Sound Cards, Computers, Music Servers.
- Cosmetically matches C-Series BP26, MPS2, etc

## POWER CONSIDERATIONS

The BUC-1 has a three prong grounded IEC 60320 power inlet. Make sure that the voltage source you plug an interconnecting line cord to is the same as that stated on the "data plate" label.

Also, you can reduce the possibility of local ground loops which could cause hum or noise in the system by plugging its line cord into the same wall outlet next to the power amp, pre-amp and other equipment in your system.

Besides the front panel push-on/push-off power switch, there is also a remote trigger (ON/OFF) connector (a 2 conductor mini 3.5mm phone jack) which when supplied with 12v @ 50mA or greater will turn on the BUC-1).

A green LED located above the front panel power switch will light when the unit is powered on.

## INTERNAL FUSE

The BUC-1 contains a single fuse located inside the unit. IF it should become necessary to replace this fuse we recommend that you seek the assistance of qualified service personnel.

BUC-1 Fuses	
120Vac models:	T250mA/250V (0218.250)
240Vac models:	T160mA/250V (0218.160)
Turn off unit and disconnect power cord before changing fuses.	

The fuse is a 5x20mm glass type located at the rear of the unit near the power inlet.

To remove the top cover to access the internal fuse a Torx-8 screwdriver is required. Remove all external screws securing the top cover and slide the top cover towards the rear of the unit by approximately 1/4 inch before lifting it off the unit. After replacing the fuse, replace and secure the top cover before reconnecting the power cord.

**CAUTION:** Whenever the BUC-1 is connected to a power source *hazardous live* voltages are present in the BUC-1. It is essential, therefore, before opening up the BUC-1, that the power cord be disconnected from it entirely. Replace a damaged or blown fuse with the type and value indicated on PCB or the fuse label on the PCB.

## FRONT PANEL:

**POWER SWITCH:** There are no switches or controls on the BUC-1 besides the pushbutton power ON/OFF switch. If the front panel LED power indicator is on yet the power switch is in the out (Off) position then the remote trigger is controlling the unit, keeping it turned ON.

**SAMPLE RATE LED ARRAY:** Eight LEDs arranged in 2 columns X 4 rows. Indicates the sample rate of the USB input and whether or not it is locked.

## REAR PANEL:

**BNC & PHONO OUTPUTS:** There are two SPDIF outputs intended for connectors using co-axial wire:



a BNC male and an Phono (RCA) female connector labelled “CO-AX”.

**AES/EBU OUTPUT:** There is one AES/EBU (Audio Engineering Society/European Broadcasting Union) fully balanced input using a 3 pin XLR female connector for a twisted pair wire connection of a digital audio signal.

**USB INPUT:** There is a single USB Audio Class 2 input (24 bit/192KHz). New drivers may have to be installed in your computer to use this port. See pages 3 & 4 of this manual for more information. When connecting to a PC it may be necessary to direct the digital audio stream from your computer through its USB port to the BUC-1. To do so, click on your PC’s *START* menu then select *CONTROL PANEL > SOUNDS & AUDIO DEVICES > AUDIO* and ensure that the *Bryston BUC-1* is selected

**N.B.** No drivers are required for MAC OS. See page 3 for more information

**REMOTE TRIGGER INPUT:** The BUC-1 is equipped with a remote trigger (ON/OFF) connector (a 2 conductor mini 3.5mm phone jack) which when supplied with 12 VDC @ 50mA or greater will turn on the BUC-1.

The remote trigger operates a relay which is in parallel with the pushbutton power switch (front panel) and this even if the front panel switch is in the OFF position (out) the unit may still be operational. The Green LED will light the unit is switched on locally via the front panel switch or remotely via the *remote trigger*. Note that the Trigger input is polarity insensitive, i.e. it does not matter which terminal is positive and which is negative.

**DATA PLATE:** This label located on the rear panel provides the units exact model number, serial number, electrical rating and date of manufacture. Do not remove. The date code indicates then date of manufacture where formatted as YYWW where “YY” is the two least significant digits of the year and WW is the week of the year.

**IEC POWER INLET:** Use only approved IEC-320 power cords with C13 type connectors to mate with the BDA-2’s IEC-320-C14 power inlet.

## DIMENSIONS & SPECIFICATIONS

### POWER CONSUMPTION:

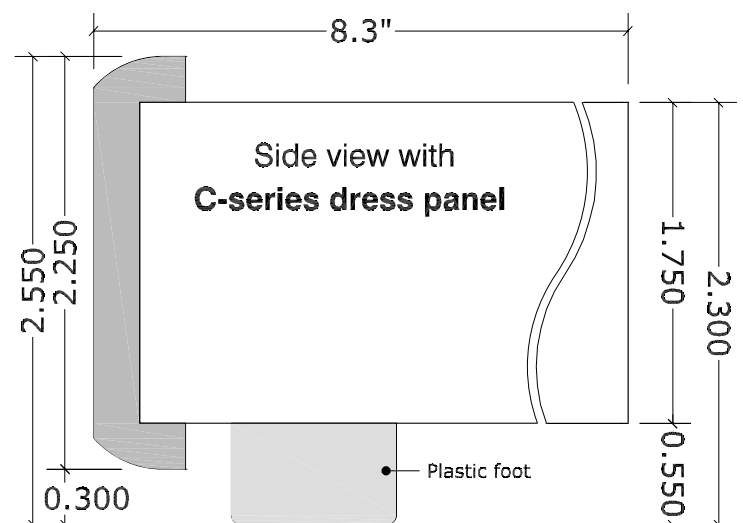
5.0 Watts max.  
400 mWatts standby

### WEIGHT:

2.05 KG (without packaging or power cord)

### EXTERNAL DIMENSIONS (inches/metric):

8.3” Deep X 5.7” Wide X 2.55” High  
211mm Deep X 145mm Wide X 65mm High



# USB AUDIO CLASS 2 DRIVER INSTALLATION

## MAC OS X Installation:

MAC OS 10.6.4 and above, natively supports USB Audio class 2, and no additional drivers are required.

## Windows 7 Installation:

To use the Bryston BDA2 as a USB sound device, the Windows operating system requires additional USB drivers to be installed.

These drivers can be found on the Bryston USB key that is included in the box.

Connect the Bryston BDA2 to your computer.

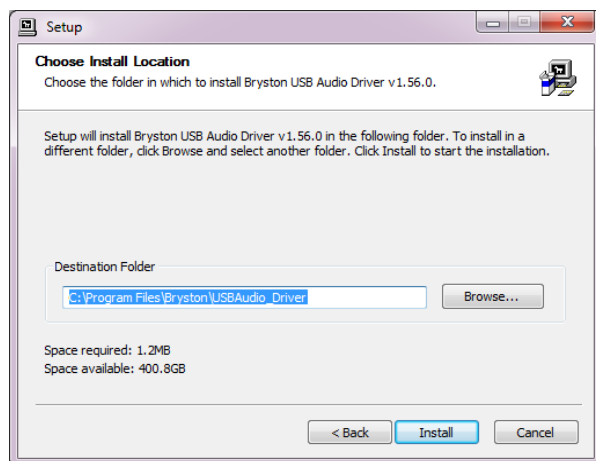
Plug the Bryston USB key into a USB port on your computer.

In windows explorer, navigate to the Bryston USB key (BRYSTON\_USB).

Now run the file called "setup.exe". The following window will open:

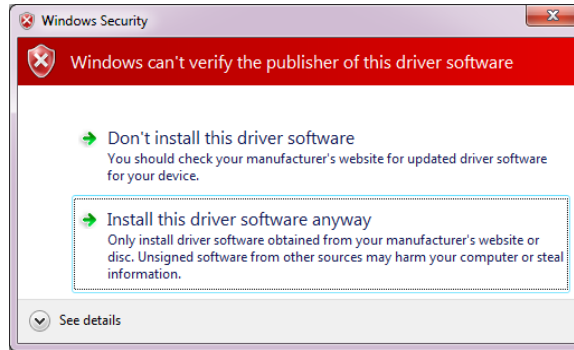


Click the "Next >" button.

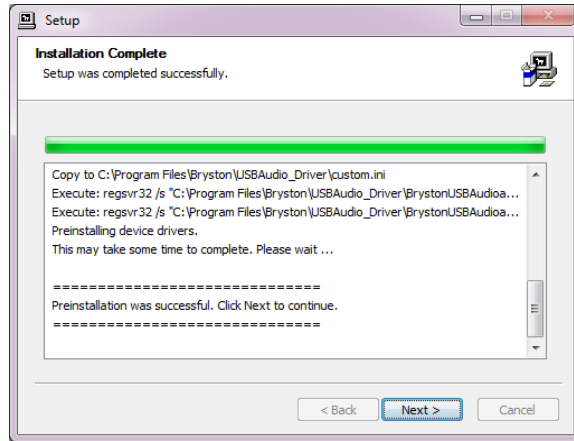


Install the Bryston USB Audio drivers in the default folder, or change the installation folder if required. Click the "Install" button.

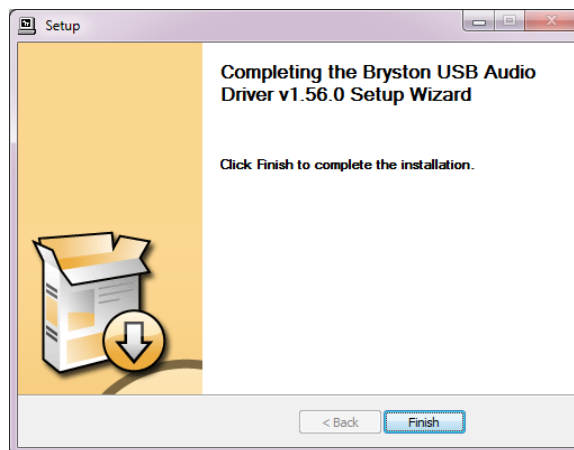
A Windows security warning will pop up twice.  
The USB drivers are safe to use, so select: "Install this driver software anyway"



The setup wizard will copy all the necessary files and preinstall the drivers.  
After successful installation, the following window will open.



Click the "Next >" button.



The setup wizard is finished and Windows will now install the Bryston USB audio drivers.  
The Bryston BDA2 D/A is now ready to use as a sound device in Windows.

