

BRYSTON

BCD-1
OWNER'S MANUAL

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 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.

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 return shipping costs only for the full length of the specific product's 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.com

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.com

BRYSTON SERVICE outside Canada and the USA:

contact your local distributor or

CHECK OUR WEB SITE: www.bryston.com
E-MAIL BRYSTON DIRECTLY: cdnser@bryston.com
FAX BRYSTON DIRECTLY: 01-705-742-0882
PHONE BRYSTON DIRECTLY: 01-705-742-5325

TABLE of CONTENTS

Important Safety Instructions, Warranty & Contact Info. Opposite

General Description Pg 1

- Power Considerations
- Fuses & Electrical Safety
- Remote ON/OFF Control

Front Panel Features

- Alpha-numeric display
- Infra-red Sensor
- Standby LED Indicator
- Open/Close Button
- Main Operating Controls
- Power ON/OFF Button

Rear Panel Connections Pg 2

- Balanced Outputs
- Single-ended Outputs
- TOSLINK Interface
- SPDIF Interface
- AES/EBU Interface
- Remote Trigger Input
- RS232 Serial Port
- Firmware Updates

IEC Power Inlet Pg 3

Infra-Red Remote Control

- Programming the BCD-1 via the Remote Control
 - Turning the Display ON or OFF
 - Enable or disable the External (remote) Trigger:
 - Setting Output Attenuation (Gain)
- Programming the Remote Control

Remote Control Buttons / Functions Pg 4

• POWER	• VOLUME
• MUTE	• NUMERIC KEYS
• TIME	• SCAN
• RANDOM	• REPEAT
• BACK	• PREVIOUS
• NEXT	• FORWARD
• EJECT	• STOP
• PAUSE	• PLAY

Cautions
Electrical Specifications

External Dimensions Pg 5

GENERAL DESCRIPTION

Bryston's BCD-1 is a *Red Book* CD/CD-R player featuring:

- fully discrete class A output amplifiers
- 24 bit/192K over-sampling DAC
- Both balanced and single ended audio outputs
- three isolated digital outputs: TOSLINK (optical), AES/EBU and SPDIF
- Software updates possible via RS232 jack
- Remote hard wired on/off control (external trigger)
- full function remote control in a machined aluminum enclosure with machined aluminum buttons, can be used to control the volume of other Bryston products as well as the BCD-1 (see *Programming the Remote Control* on page 3 for more information)

POWER CONSIDERATIONS

In general, if your BCD-1 disc player has a three prong grounded line cord you can avoid 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 disc player and power amp.

FUSES & ELECTRICAL SAFETY

The BCD-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. If you decide to change the fuse yourself we advise the following:

- 1st) Turn off the BCD-1
- 2nd) Disconnect ALL cables from the rear of the BCD-1, especially the power cord.
- 3rd) Remove the 10 screws securing the top cover to remove the top cover panel
- 4th) Locate the 5x20mm glass fuse on the CD1-PM circuit board (near the IEC power inlet) of the BCD-1. Replace a blown fuse only with the same type and value of fuse. All fuses are rated 250V

For 100 volt models fuse value is T 630mA L	For 120 volt models fuse value is T 500mA L
For 230 volt models fuse value is T 250mA L	For 240 volt models fuse value is T 250mA L
- 5th) Replace the top panel and all 10 screws and reconnect all necessary cables

REMOTE ON/OFF CONTROL (*External Trigger*)

The BCD-1 can be turned ON and OFF remotely using a DC control voltage (between 3 and 12 VDC) applied to the TRIGGER inputs located on the rear panel. To enable this feature the BCD-1 must be programmed via the infra-red (IR) remote control using code 241. See PROGRAMING THE BCD-1 on page 3 for more information.

FRONT PANEL FEATURES & CONTROLS:



1: ALPHA-NUMERIC DISPLAY (2 lines of 16 characters). When this display is lit, the unit is ON.

2: INFRA-RED SENSOR for remote control.

3: STANDBY LED INDICATOR: When lit red the unit is on standby. If neither this LED nor the alpha-numeric display is illuminated, then there is no power entering the unit or the internal fuse is blown.

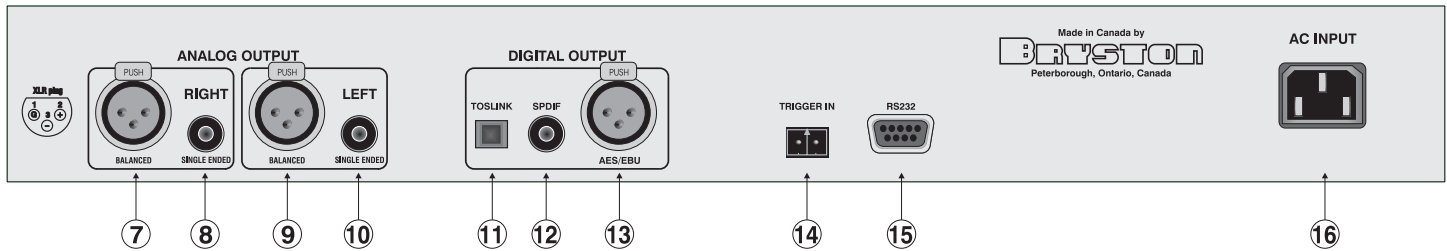
4: OPEN/CLOSE BUTTON: Push once to open disc drawer, push again to close.

5: MAIN OPERATING CONTROLS:

- PREVIOUS: Move to the previous track.
 NEXT: Move to the next track.
 STOP: Stop playing disc. Pressing "play" again will return to the beginning of the first track.
 PAUSE: Stop playing disc while retaining the current position. Press *Pause* again to resume play.
 PLAY: Play the disc. Pressing *Play* when the disc is already playing will cause the BCD-1 to replay the disc from the beginning of the first track.

6: POWER ON/OFF BUTTON. Toggles the power on and off. This button will not function if the External Trigger function has been activated using code 241. See "*TRIGGER IN Socket*" on page 2 and "*Programming the BCD-1*" on page 3 for more information

REAR PANEL CONNECTIONS



7/9: BALANCED OUTPUT CONNECTORS

The BCD-1 is supplied with one pair of gold plated 3 pin male XLR jacks (pin 1 is ground, pin 2 is positive & pin 3 is negative) which are driven by fully discrete active amplifier circuitry providing a buffered balanced output signal.

8/10: SINGLE-ENDED OUTPUT CONNECTORS

The BCD-1 is supplied with one pair of gold plated RCA (*phono*) jacks providing a buffered, single ended output signal driven by fully discrete amplifier stages.

11: TOSLINK optical connector providing fully isolated digital bitstream output conforming to EIAJ optical interface standard.

12: SPDIF (Sony/Philips Digital InterFace) digital bitstream output connector (gold plated RCA or *phono* jack)

13: AES/EBU digital bitstream output connector (gold plated 3 pin male XLR jack) conforming to AES3 standard.

14: TRIGGER IN socket. This two pin socket mates with the CO110A-11102 bare-wire terminal block connector supplied with your BCD-1. Supplying a DC control voltage between 3 and 12 volts (at greater than or equal to approximately 3mA) will allow you to remotely power your BCD-1 on or off. When the *External Trigger* operation is enabled the presence of an appropriate control voltage will cause the BCD-1 to be powered up. Withdrawing the control voltage will turn the BCD-1 off (i.e. it will return to standby mode).

To enable the *External Trigger* operation:

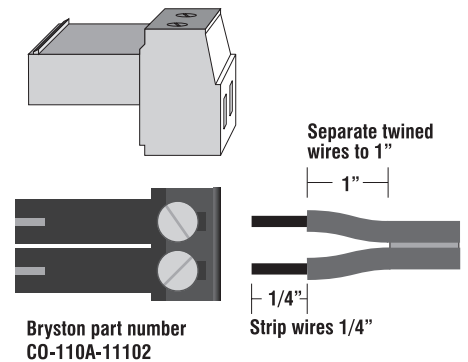
1st: Place the BCD-1 in standby. The POWER button on either the front panel of the BCD-1 or on the remote control can be used to do this. The LED on the front panel, above the POWER button, will light red when the unit is in standby mode

2nd: On the remote control, press CODE momentarily. The red LED on the remote control will light.

3rd: While the red LED is still lit, press 2 4 1 on the remote control. When entered correctly the red LED will flash twice and then extinguish. The alpha-numeric display on the front of the BCD-1 will display one of two messages. If the *External Trigger* operation has been invoked the display will read "Ext Trigger Entered". If the unit was already in *External Trigger* mode, the display will read "Ext Trigger Disabled" indicating that the BCD-1 is no longer in External Trigger mode and that the front panel and remote control POWER buttons will now operate again and that the Trigger In connector has been deactivated. Be sure to point the remote control at the BCD-1 while doing this and ensure that there is line of sight.

4th: To toggle the *External Trigger* mode on or off just repeat steps 1 through 3 above. If the unit is in External Trigger mode, remove the DC control voltage to place the unit in standby mode before beginning.

15: RS232 port. For uploading new software into the BCD-1. Connects to an RS232 serial port on a computer capable of running a Windows executable program.



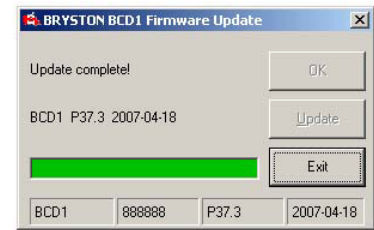
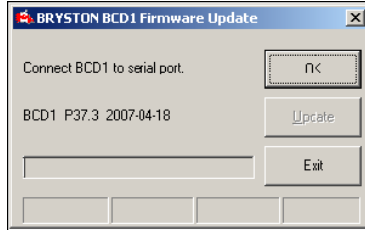
BRYSTON BCD-1 CD PLAYER FIRMWARE UPDATES

BCD-1 firmware updates will periodically be available from Bryston dealers or from Bryston Ltd. directly. These firmware updates will be supplied as an executable file (program) which, when executed on your PC, will search for available serial ports on your computer and then search for the BCD-1 CD player before uploading and automatically installing the new firmware in your BCD-1.

- 1) If the BCD-1 is ON, place it in standby by pressing the POWER button either on the front panel or on the remote control. When the LED above the POWER button lights red, the BCD-1 is in standby.
- 2) Connect a suitable RS232 cable between your PC (sorry, but MAC's are not supported at this time) and the BCD-1. In most cases (depending on your computer) this cable will be a DB9-male to DB9-female straight through cable.
- 3) IF your computer does not contain an RS232 serial port, but does contain a USB port, there are modestly priced USB to RS232 serial port adaptors available.

- 4) Upon execution the 1st dialog box at the right will be displayed. Click on OK and the program will search for the BCD-1's serial port via any available serial port on your computer.
- 5) When the BCD-1's serial port has been found, the dialog box will indicate this by displaying the message "BCD1 found on ComX". Click on UPDATE to initiate the update procedure.
- 6) When completed and the final dialog box is displayed, click on EXIT to finish.

N.B. In some cases it may be necessary to obtain a newer version of the Visual Basic control MSCOMM32.OCX. Contact Microsoft if you see warnings or cautions concerning this control.



- 16: IEC Power Inlet.** Use only approved IEC-320 power cords with C13 type connectors to mate with the BCD-1's IEC-320-C14 power inlet.

IR REMOTE CONTROL

CODE button:

Programming the BCD-1:

Turning the Display ON or OFF: To allow toggling the display ON/OFF using the "0" (zero) button

- 1st) Press the CODE button momentarily until the red LED is continuously lit.
- 2nd) Enter the code 242. The words "DISPLAY OFF" will be shown on the bottom line of the display.
- 3rd) The zero button can now be used to toggle the display on or off. Reverse this procedure to deactivate this display on/off function

Enable or disable the External (remote) Trigger:

- 1st) Place the BCD-1 in standby mode by pressing the POWER button on either the BCD-1 itself or on the remote control until the red standby LED on the front panel of the BCD-1 (immediately above the front panel POWER button) lights.
- 2nd) Press the CODE button momentarily until the red LED is continuously lit.
- 3rd) Enter the code 241. Every time the code is successfully entered the state of the External Trigger will toggle between enabled and disabled and the status of the External Trigger will be displayed on the alpha-numeric display for 2 to 3 seconds.

The External Trigger utilizes a control voltage (3 to 12 volts, either AC or DC) connected to the TRIGGER IN port on the rear of the BCD-1. A wire-clamp connector that mates with the TRIGGER IN port is provided with every BCD-1 (See page 2 for wiring details). Once enabled the BCD-1 will only be powered on when a control voltage of 3-12V AC/DC at $\geq 3\text{mA}$ is present. As soon as the control voltage is withdrawn the BCD-1 will power down and go into standby mode.

Setting Output Attenuation (Gain):

The gain of the BCD-1 can be adjusted from it's default condition of 0dB (code 250) to -1dB (code 251), -2dB (code 252) or -3dB (code 253)

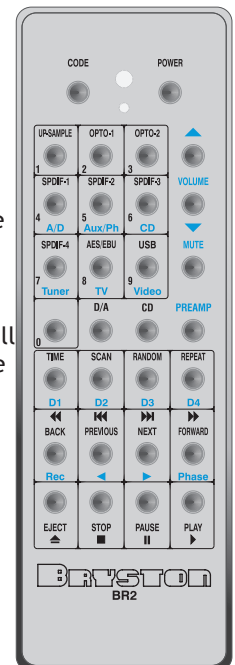
- 1st) Press the CODE button momentarily until the red LED is continuously lit.
- 2nd) Enter the the desired attenuation code: 250 for 0dB, 251 for -1dB, 252 for -2dB or 253 for -3dB

Programming the remote control:

The infra-red remote control supplied with the BCD-1 can also be used to control the volume and mute functions several other Bryston products including the BP26 & BP6 preamps, B60R and B100 integrated amplifiers and the SP2 Surround Sound Processor/Preamp. To program the BR2 remote control to operate other Bryston models follow these steps:

- 1st) Press and hold the CODE button on the BR2 remote until the red LED begins to flash (usually takes about 5 seconds).
- 2nd) Once the red LED remains steadily lit enter a three digit code as follows:
 - 711 : SP2 PreAmp/Processor
 - 712 : B100 integrated amplifier
 - 721 : BP26 preamp
 - 722 : B60R integrated amplifier & BP6 preamp

The red LED will flash twice after a code has been entered successfully.



- POWER** button: Toggles power to the BCD-1 on and off. Note that the POWER button (both on the remote and on the BCD-1's front panel) will not work when the *External (Remote) Trigger* has been enabled.
- VOLUME ▲ / ▼**: Increases or decreases the volume on remote capable Bryston preamps & processors like the BP6, BP16, BP26 & SP2 and integrated amplifiers like the the B60, B100
- MUTE** button: Mutes the audio outputs of remote capable Bryston amps, preamps and integrated amps
- NUMERIC** buttons: Advance to and begin playing specific tracks by entering a one or two digit number. There is a short delay of approximately 2 seconds before the BCD1 will advance to the track number entered. Do not preface single digit track numbers with a zero. Also used in conjunction with the CODE button to program both the IR remote and the BDC-itself (See previous page for more details).
- TIME** button: Pressing the TIME button initially causes the display to show the elapsed time of the track that is playing. Pressing the TIME button again changes the display to show the remaining track time. Pressing it a 3rd time shows the elapsed time for the entire disc, and pressing it a 4th time shows the remaining time for the entire disc. The time display will continue to cycle through these various modes with every subsequent press of the TIME button.
- SCAN** button: Automatically plays the first 10 seconds of each track. To stop scanning the disc and play the track currently being previewed, press SCAN again. Pressing the PLAY button while in the middle of scanning a track will restart the 10 second scan of the current track. Both the NEXT and PREVIOUS track buttons can be used while scanning
- RANDOM** button: Plays all tracks on the disc in a random order. Display will show "RANDOM" when engaged. Pressing RANDOM a second time will cause normal play to resume.
- REPEAT** button: Press once to repeat the current track; display will show "RPT TRACK". Press again to repeat the entire disc; display will show "RPT DISC". Press REPEAT again to cancel repeat modes.
- BACK** button: Back or *review* plays in reverse at several times the normal speed until the button is released.
- PREVIOUS** button: Advances immediately to the beginning of the previous track.
- NEXT** button: Advances immediately to the beginning of the next track.
- FORWARD** button: Fast forward or *preview* plays at several times the normal speed until the button is released.
- EJECT** button: Stops play immediately and opens the disc drawer.
- STOP** button: Stops play immediately. Subsequently pressing PLAY will begin play from beginning of disc.
- PAUSE** button: Stops play immediately. Subsequently pressing PAUSE will resume play from the paused position. Pressing PLAY after the disc has been PAUSED will cause play to resume from the beginning of the current track.
- PLAY** button: Plays disc. Entering a 1 or 2 digit number and then pressing PLAY will play that track number.

DISC TIME ELAPSED		TRACK TIME ELAPSED	
DISC	1	0:44	1
PLAY			0:15
			PLAY

DISC TIME REMAINING		TRACK TIME REMAINING	
DISC	1	-36:43	1
PLAY			-15:40
			PLAY

a

TRACK	1	0:04
SCAN		10 SEC

TRACK	9	1:55
PLAY		RANDOM

TRACK	4	1:09	1:34
PLAY		RPT TRACK	RPT DISC

CAUTION

The BCD-1 contains a class 1 laser and although this is considered inherently safe do not operate the BCD-1 without the top panel on.

SPECIFICATIONS

Electrical: **Power Consumption:** Standby: 0.84W Idle: 7.2W Play: 9W.

Weight: with packing materials: 15 Lbs (6.8Kg) without packaging: 11 Lbs (5 Kg)

BCD-1 CD PLAYER

BCD-1 EXTERNAL DIMENSIONS

