BRYSTON OWNERS MANUAL

BRYSTON Bi-200
STEREO INTEGRATED AMPLIFIER

MUSIC WITH EMOTION

IMPORTANT SAFETY INSTRUCTIONS

The lightning flash with arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated “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. Unplug this apparatus during lightning storms or when unused for long periods of time.

13. 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.

COMPLETELY DISCONNECT THIS EQUIPMENT FROM THE AC MAINS.

DISCONNECT THE POWER SUPPLY CORD FROM THE AC RECEPTACLE

WELCOME

Thank you for your purchase of a Bryston Bi-200 Integrated Amplifier. The Bi-200 is a premium quality integrated amplifier that defeats the common assumption that such products are inherently a compromise. High output power, low distortion, exceptional sound quality and a variety of features and options make the Bi-200 suitable for a wide variety of high quality audio applications.

DESCRIPTION

The Bryston Bi-200 is comprised of a fully featured preamp (BP-19) and dual-mono amplifier (3B) housed in a single chassis. Single ended and Balanced analog input/outputs facilitate connection to external amplifiers and source components. MM and MC Phono options are available as well. In addition to the front panel control, the Bi-200 is compatible with the Bryston BR-2 IR remote control.

FULLY BALANCED DISCRETE CLASS A CIRCUITS

The Bi-200 analog preamplifier section is a byproduct of years of R&D that resulted in the development of an optimized fully discrete op-amp buffer amplifier capable of delivering a staggeringly low THD+N measurement at or below 0.0006%. The analog signal path is a FULLY BALANCED DESIGN from input to output, using an array of very tightly matched components and a compact circuit design to achieve the lowest possible noise and superior common mode rejection.

One major contributor that allows us to keep a fully balanced signal path throughout the signal path in the Bi-200 is the specialized volume control.

In the past, a fully balanced signal path was difficult to achieve because you would need a volume pot with 4 tapers. With the new volume control chips, this is no longer an issue. The new design does have a lower noise floor than previous designs and it's much better at suppressing common mode noise.

Features:

2 pair balanced female XLR inputs

1 pair balanced male XLR outputs (Fixed/Variable)

1 pair single ended outputs (Fixed/Variable)

4 pair RCA inputs (Input 1 Option Phono BP-19P & BP-19MC only)

Options:

Standard Silver or Black Faceplates Available in 17 or 19 Inch

Pro 19 Inch Rackmount

Custom Colour Faceplates Available (see age 12)

Moving magnet RIAA phono equalization module

Moving Coil Transformer phono module 20/26 dB

FEATURES

- Six analog pairs (2-XLR and 4 RCA) of inputs for source connectivity
- One Analog XLR Balanced Output (Variable or Fixed level)
- One RCA Single Ended Output (Variable or Fixed level)
- Optional MM and MC phono stage
- 200 watt x 2 channel output power into 8Ω
- Separate power supplies for each amp channel and preamplifier
- IR and RS232 control
- Fully passive thermal management
- Bryston 20 Year analog warranty.

INSTALLATION AND USAGE

The Bi-200 Integrated Amplifier is designed to function optimally in a variety of circumstances but careful placement will ensure long life and outstanding performance. Do not place the Bi-200 nearby known sources of electromagnetic or radio interference. Dress cables to avoid parallel runs of power cables and audio interconnects. Usually, using audio interconnects and speaker cables that are as short as possible results in the best sound quality.

Always use Balanced cables if given the option.

VENTILATION

Bryston has deliberately chosen to omit fans from our amplifiers in an effort to minimize the noise level in your listening environment. Instead, we use only passive heat sinks which are fully capable of maintaining a safe operating temperature of the amplifier even under dynamic play-back conditions. For them to work most effectively, air must be permitted to pass freely through the heat sink fins and around the amplifier. Please maintain a minimum of 3.5 inches of space to each side, top and back of the amplifier when in use.

CONNECTING AC POWER

Please check the Data Plate on the Bi-200 amplifier to verify power requirements agree with your location. Plug the IEC-320 C14 end of the power cord into the amplifier, then plug the other end into an approved and grounded A/C receptacle. The power LED on the front panel will be red indicating the unit is in standby.

CONNECTING SOURCE COMPONENTS

The Bi-200 features 6 stereo pairs of line level inputs suitable for connecting source components such as CD players, external digital to analog converters, and other components that have line-level outputs.

The Bi-200-P (PHONO) features 1 pair (RCA-1) of stereo inputs suitable for connecting turntables equipped with moving-magnet or moving-coil cartridges. Source components should be connected with good quality audio interconnects. Unlike some other preamps and integrated amplifiers, the Bi-200 is internally symmetrical. The left/right pairs of input jacks on the back panel are split symmetrically about the vertical center line.

CONNECTING LOUDSPEAKERS

Connection to loudspeakers is accomplished by attaching high quality speaker cable to the Output Binding Posts per the following. The RED binding post is connected to the positive channel output. Connect this post to the (+) terminal on the loudspeaker. The BLACK binding post is connected to ground. Connect this post to the (-) terminal on the loudspeaker. The output binding posts provide three different interconnect options. Combinations may be used when bi-wiring. Cables should be kept as short as practical and should never be terminated with connectors that may become confused for AC power connectors. Cables should be dressed away from input and power cables.

To prevent the risk of equipment damage or personal harm, use only Class 2 rated loudspeaker wire properly terminated and connected securely to the binding posts. Banana plugs offer a quick disconnect option. Before inserting a banana plug into the binding post, be sure to tighten the post nut to avoid rattling and to provide full insertion of the banana plug.

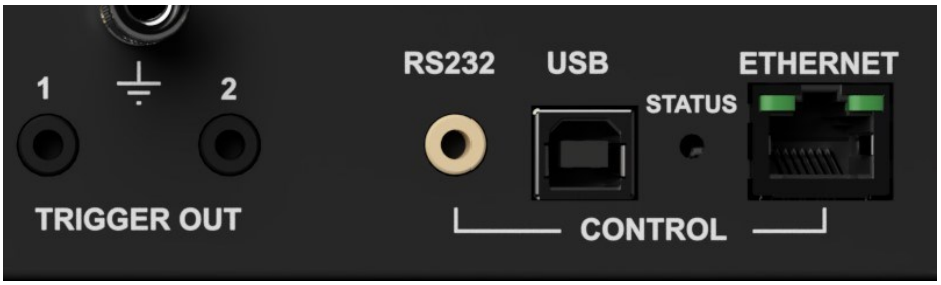
Spade lugs provide high contact area and secure fastening. Lugs should be gold plated. Post diameter is 5/16" (8mm), lug width 5/8" (16 mm). Stripped bare wire up to 3 gauge can be inserted through the hole in the binding post and held in place by tightening the post knob. Do not over-tighten or the binding post as it may become damaged. Note that copper wire is malleable and may require further tightening after the initial installation.

LINE LEVEL OUTPUTS

One set of Single Ended and one set of Balanced XLR outputs are available on the Bi-200. They can be configured in the menu for Variable or Fixed output levels.
Factory default is Variable.

CONTROL

The Bi-200 provides a trigger Output. There is RS232 as well as USB and Ethernet control.



REMOTE CONTROL

Control of the Bi-200 Integrated Amplifier can be accomplished through the front panel buttons as well as the supplied IR remote such as the Bryston BR-4 hand held remote or via RS232.IR

To enable the BR-4 to control your Bi-200, you must first configure the BR-4 by completing the following sequence:

- Press and hold the CODE button for a few seconds until the red LED on the BR-4 flashes twice.
- Enter the code 712 on the BR-4
- Observe that the red LED flashes twice again.

Test the remote function by using it to change source inputs and volume up/down.

Power on the Bi-200, select your desired input, and adjust the volume to your liking and enjoy. Each input button on the front panel corresponds with an analog pair on the rear panel.

FACEPLATE CONTROLS

WHITE OLED DISPLAY:

- Currently selected source.
- Current volume level.
- Brightness level adjust.
- Auto Turn Off

Input LEDs
Each input button has a corresponding LED immediately above it which lights green when that input is activated.

Input Select
Each button corresponds with input jacks on the rear panel. Press a button to select the corresponding connected source component.

IR Sensor
Signals from infrared remote control units such as Bryston BR-4 are received here.

Headphone Output
This jack accepts 1/4" TRS headphones and is driven directly from the preamplifier section utilizing separate headphone buffers. Inserting a headphone plug into the jack mutes the loudspeakers automatically (indicated by the mute LED on the front panel turning red). The Preamp Output is also muted. Output level is governed by the volume knob. The headphones cannot be muted with the remote control unit or the front panel Mute.

Balance Adjust

When the left/right signal balance is being shifted one of these LEDs will light green to indicate which channel is being attenuated. Balance can be adjusted in 1dB increments up to -6dB in either direction.

Volume Adjust

Rotate this knob counter clockwise to reduce the output volume at the loudspeakers and Preamp Output. Rotate the knob clockwise to increase output level.

Mute

Press Mute to cut output to the attached loudspeakers and the Pre Amp out jacks. When in a mute state, the LED will light red.

Power

Press this button to power the unit on/off (LED will be green if ON) or place the unit into Standby (LED will be red).

Analog Inputs

Each input pair corresponds with a button on the front panel. Connect the left/right analog outputs of each source component to a left/right analog pair of jacks. Bi-200 'P': Input 1 (OPTIONAL) feeds the internal MM/MC phono stage.

Only connect a turntable to these inputs!
Not for regular line level analog.

RS232 Connector

Control the Bi-200 using RS232 based home automation systems by connecting this input to the automation system.

Ground Screw

Bi–200 P: When connecting a turntable, also connect a ground wire to the Bi-200-P when available to eliminate hum due to a ground loop.

Compartment

An IEC-320 C14 power inlet provides for connection of an IEC-320 C13 equipped power cord. Before connecting the power cord to the amplifier, check that the voltage rating on the data plate or ratings label conforms with your locality. The Bi-200 is protected by an AC Mains fuse specifically rated for the AC power in your region. The fuse must be installed and intact for the amplifier to power on and operate. Only replace the fuse with one of identical value listed on the Fuse Data Label. Do not attempt removal or replacement of the fuse when the amplifier is plugged into the wall!

Control Section

The Bi-200 preamplifier can be controlled by remotely using RS232 or IP when connected through the RS232 or SVC Ethernet ports.

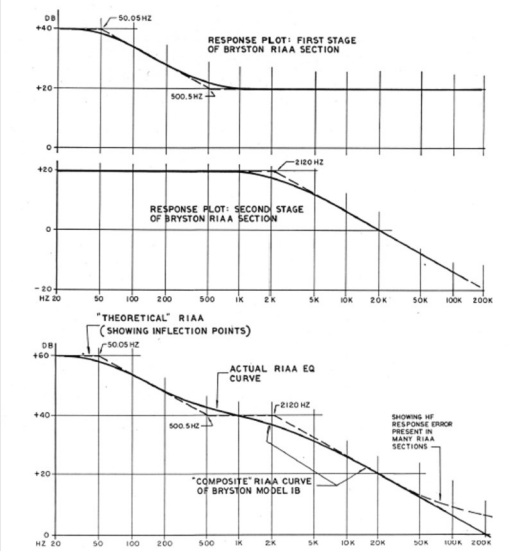
Ins and Outs

ANALOG INPUTS
2 Pair Balanced XLR Inputs
4 Pair Single Ended RCA Inputs

ANALOG OUTPUTS
1 Pair Balanced XLR Outputs
1 Pair Single Ended RCA Outputs

PHONO INFORMATION FOR BP-19 MM/MC STAGES

Most Moving-Magnet phono stages expect to receive a signal between 3-6 mV at their input from the cartridge.

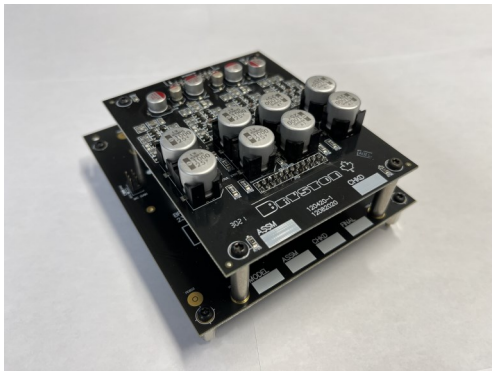


The Bryston Moving Magnet stage is a 41dB @1kHz gain preamp with a very unique RIAA playback equalization for moving magnet cartridges.

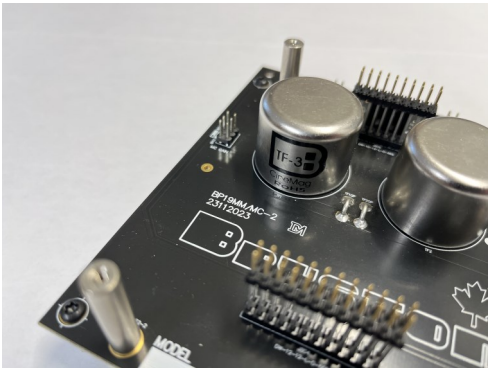
The RIAA Curve or equalization is a form of pre-emphasis on recording and de-emphasis on playback. A recording is made with the low frequencies reduced and the high frequencies boosted, and on playback, the opposite occurs.

Bryston's version of the RIAA curve is a one of a kind and has been proven to be one of the most accurate available.

BRYSTON



MOVING MAGNET PHONO STAGE



MOVING COIL PHONO STAGE

A step-up Moving-Coil transformer is designed to accept the lower voltage output from the MC cartridge and increase the voltage to a point which is acceptable to the input stage of the standard MM phono section.

The internal Bryston Moving-Coil step-up transformer in the Bi-200 preamplifier is available in two versions...with a 20dB or a 26dB gain option. Your choice on which unit is most appropriate will be determined by the voltage output of your chosen cartridge.

- **From .1 to .2 mV we recommend the 26dB version.**
- **At .3 mV either version would work fine.**
- **From .4 to .5 mV we would recommend the 20dB version**

This approach takes into account the cartridge's output voltage rather than the more traditional cartridge output impedance.

An important point to consider when choosing which Step-up to use is you do not want to over-power or under-power the MM phono stage. Under-powering results in not having enough GAIN in the system and over-powering can result in voltage overload and the resultant distortion.

For example, a cartridge with a 5 ohm source impedance sees a 5 ohm load at the transformer's input.

BR4/BR20 Remote Battery Change Instructions:

To verify if the batteries are dead, push the CODE button near the top left of the remote. If the white LED embedded at the top is not lighting up…. then your batteries are most likely dead.

Take off the bottom panel of the remote by removing the two Phillips screws in each corner. Then use a small pair of plyers to pull the green board out and expose the battery compartment. Be aware that the green board slides in and out of the two black rail guides framed into the moulding of the remote. This is best accomplished with the remote turned over and the buttons facing down. (see picture)

Change the batteries and put back in reverse order. ***When putting back together… be sure that the IR bulb at the very top of the remote is properly poking out of the top and has not gotten bent inside.***

Test again.

If the White LED is now lighting up – but the remote is still not working – you may have to re-enter a code.

BR20 Specific Remote:

- Push and HOLD code button for 5 FULL seconds.
- (The White LED should light up and let go once it starts to blink)
- Then FIRMLY push D7, D9, D5 in sequence
- (The white LED should blink twice to say it has accepted the code.
- Test remote again.

BR4 Remote:

- Make sure you push the DIGITAL, PREAMP or CD button first (based on what product you have) before testing.

If still not working - refer to the BR4 manual for specific product codes:

BR4 Manual Link:
https://support.bryston.com/downloads/Remotes/

Bi-200 GENERAL SPECIFICATIONS

BRYSTON	PREAMPLIFIER	SECTION
Frequency Response	20Hz – 20kHz	+/- 0.05dB
SIGNALT0 NOISE	BALANCED OUT SINGLE ENDED OUT	-110dBr -110dBr
IMD	LESS THAN	0.0003%
THD + NOISE	20Hz-20kHz	0.0006%
BRYSTON	**INTEGRATED**	**AMPLIFIER**
Signal To Noise	Weighted Filter: 22Hz-22kHz, decibels below rated output	<-108dBr
THD + NOISE	20Hz-20kHz	Rated Power, 8Ω <0.005%
Power Per Channel	200W @ 8Ω	300W @ 4Ω
Sensitivity	8Ω	2.00V/100W
IMD	≤0.005%	Typically ≤0.002%
THD+N	20Hz-20kHz @ 200W, 8Ω:	≤0.005%
Slew Rate		>60V / µS
Frequency Response	0±0.1dB	20Hz - 20kHz

Bi-200 GENERAL SPECIFICATIONS

BRYSTON	INTEGRATED	AMPLIFIER
Weight	37 lbs	16.8 Kg
Packaged Weight:	45 Lbs.	20.4 Kg
Power Consumption (Watts)	Standby: <0.5 Idle: ≤60	200W 8Ω: 700
Heat Load (BTU/Hour)	Idle: 205	2 Ch. 200W 8Ω: 2388
Damping Factor	20Hz, 8Ω	>500

Personalized Faceplates

Bryston is pleased to introduce the availability of personalized faceplate colours, available now for Bryston amplifiers, preamplifiers, CD players, digital players, phono stages and DAC's.

Our new colour choices, plus the option to create custom colours, enable Bryston electronics to blend seamlessly or contrast elegantly within any décor or equipment rack.

Enjoy bespoke colour choices as an added touch to any entertainment space.

ADDITIONAL CUSTOM COLOURS AVAILABLE UPON REQUEST

Source buttons only available in Black or Silver

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