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OBSOLETE

BRYSTON

BB NRB/NPB

**FOUR CHANNEL POWER AMPLIFIER
and
5B NRB/NPB THREE CHANNEL POWER AMPLIFIER
USER MANUAL**

BRYSTON 8B POWER AMPLIFIER

Thank you for your purchase of the **Bryston 8B** power amplifier. Please unpack the amplifier carefully and save the carton and packing material in the event you should need to ship the amplifier in the future.

Before using the **8B** amplifier the first time be sure to check that the amplifier you have conforms to the Voltage and Frequency requirements as supplied by your local utility. This information is printed on the upper left corner on the rear panel of the amplifier.

The **8B** does not need "Power Line Conditioners" or "Power Line filters" inserted in the A/C line and will sound best if connected directly to the A/C power outlet in the wall socket.

The **8B** may be operated as a 2, 3 or 4 channel power amplifier. Channels 1 and 2 will operate separately (2 X 120 watt/8 ohms) or in bridged mode (1 X 400 watts into 8 ohms) Channels 3 and 4 will also operate as separate amplifiers or as a bridged mono amplifier.

INPUTS:

The **8B** will accept **Balanced input** signals via 3 pin "XLR" type male connectors (pin 2 +) or 1/4 inch tip/ring/sleeve plugs (tip is +). **Unbalanced input** signals use the "RCA - PHONO" type connectors. The appropriate input connection is selected using the "UNBAL/BAL" switch. There is one switch for channels 1 and 2 and a separate switch for channels 3 and 4. (see #1)

INDIVIDUAL MODE: (2 X 120 watt/8ohms)

The "MODE" switch (see # 2) must be selected to the "INDIVIDUAL" position. The "INPUTS" switch should select the appropriate input, and the speakers should be connected to the binding posts (see # 3). The red (lower) binding post should be connected to the (+) connector (usually red) on the speaker. The black (upper) binding post should be connected to the (-) connector (usually black) on the speaker.

BRIDGED MODE-MONO OPERATION: (400 watt/8 ohms)

Channel 1 and 2 and/or channel 3 and 4 will operate as a mono amplifier with increased power. The "MODE" switch (see # 2) must be selected to the "BRIDGED" position.

Channel 1 input is used when bridging channels 1 and 2.

Channel 4 input is used when bridging channels 3 and 4.

The unused input is not active when operating in bridged mode.

Speaker connections in bridged mode are between the **red** binding posts for the channels being used (see #4). When bridging channel 1 and 2 the (+) speaker connection is to the channel 1 **red** binding post (in phase). The (-) speaker connection is made to channel 2 **red** binding post. When using channels 3 and 4 in bridged mode the (+) speaker connection is to the channel 4 **red** binding post (in phase) and the (-) speaker connection is to the channel 3 **red** binding post.

Bridged mode does not use the black binding posts for speaker connections.

GROUND LIFT SWITCH:

When the ground lift switch is in the closed (down) position the chassis ground and the signal ground are connected. In installations where a hum is noticeable, moving this switch (up) will often prevent the ground loop, and eliminate the hum. **Note: This switch does not disconnect the chassis from the third prong on the power line cord (A/C ground) which must be left intact for safety reasons.**

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FUSES:

The power line fuses are located in a compartment to the left of the power cord entry module, (see # 5). Should part or all of the amplifier appear to not be working the fuses should be checked. Remove the power cord and with your fingernail or suitable object. Snap out the fuse drawer. Visually check that the wire inside the fuse is continuous. (A blown fuse usually blackens the inside of the glass), or use a continuity tester to verify the condition of the fuse. Should either of the fuses be defective replace with the exact rating and type as shown in the triangle to the left of the fuse holder on the back panel. If a problem still exists after replacing the fuses the equipment should be referred to qualified service personnel.

**NEVER SUBSTITUTE A FUSE OF A HIGHER CURRENT VALUE
SERIOUS DAMAGE MAY RESULT.**

VENTILATION:

As with any electronic equipment, the 8B should never be operated without suitable ventilation to allow heat generated by the amplifier to dissipate. When installed in tight spaces a fan should be used to move air across the heat sinks of the amplifier. When installed in equipment racks, it is good practice to provide at least one rack space between power amplifier equipment to allow for good airflow.

CLIPPING INDICATORS:

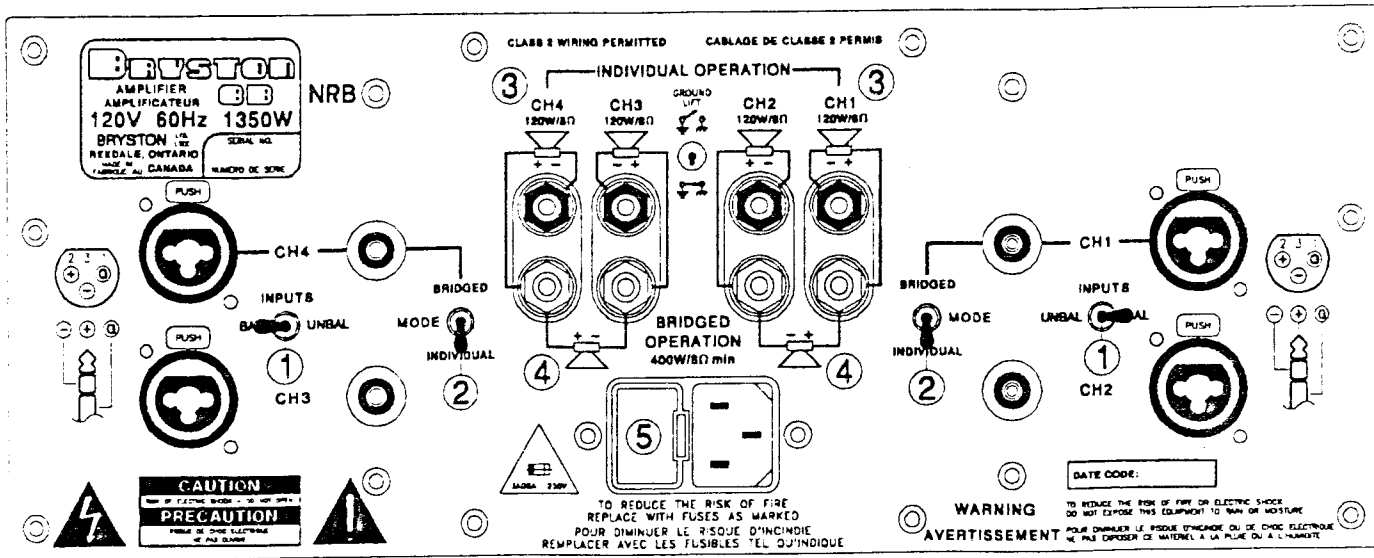
The 8B uses a 3-color LED for each channel to indicate power on (green) and overload or distortion (red). Yellow appears dynamically at the threshold of clipping to indicate caution in proceeding to higher power levels. As long as the LED is green, or green and yellow with only brief flashes of red, the waveform is reaching full power only at the highest musical peaks. Sustained red indicates the level is too high and speaker damage could result if allowed to continue. Should the LED's indicate red when the amplifier is obviously not in clipping, some other fault is present, such as a short circuit in cabling, supersonic or subsonic signals or DC at the input or output. **Conditions that cause the LED's to indicate RED for sustained periods can cause speaker damage and should be corrected immediately.**

SPEAKER POWER HANDLING & FUSE PROTECTION:

Most speakers will safely absorb an undistorted musical signal up to the full power capability of the 8B (bridged mode). However, once the signal starts to be clipped the distortion by-products generated by the overdriven signal can result in very high power levels fed to the smallest and most fragile speaker components. (Amplifiers are capable of distorted power levels twice that of the undistorted rating and this excess power is shifted to the high frequency driver by the speaker's crossover). Woofers may be damaged from excess excursions due to exaggerated bass boost, turn on/off thumps, plugging in cables with power on, etc. Many speaker manufacturers recommend the use of an inline fuse to protect drivers from overload or abuse. If you use fuses follow the manufacturers recommended power rating, as what seems like a small increase in current rating on a fuse can result in large increases in power allowed. Example: A 3 amp fuse will allow about 70 watts of power to pass but a 4 amp fuse will almost double this to 130 watts, and a 5 amp fuse will allow almost 200 watts of continuous power to the speaker.

IT SHOULD BE EMPHASIZED THAT ALMOST ANY AMPLIFIER IS CAPABLE OF INFLECTING DAMAGE ON ALMOST ANY SPEAKER IF USED IN A THOUGHTLESS OR ABUSIVE MANNER AND THAT BRYSTON CANNOT BE RESPONSIBLE FOR SPEAKER DAMAGE CAUSED IN THIS WAY.

8B-INPUTS AND OUTPUTS



WARRANTY

Bryston products are warranted to be free from manufacturing defects for a minimum of twenty years from the date of original purchase, including parts, labour and return shipping to the first and all subsequent owners. Warranty coverage is automatic and commences with the date of the original dealers bill of sale (which is the sole proof of purchase date).

In event of a defect or malfunction Bryston will remedy the problem by repair or replacement, as we deem necessary, to restore the product to full performance. Warranty service may be obtained by returning the unit to any Bryston retail dealer. If it cannot be returned to a Bryston dealer, write or call:

BRYSTON SERVICE USA.:
70 COVENTRY ST. SUITE #5
NEWPORT VERMONT
U.S.A. 05855

PHONE: 802-334-1201
FAX: 802-334-6658
E-MAIL: usaser@bryston.ca

BRYSTON SERVICE OUTSIDE CANADA & the USA:
CONTACT YOUR LOCAL DISTRIBUTOR
OR

CHECK OUR WEB SITE AT: www@bryston.ca
E-MAIL BRYSTON DIRECTLY: info@bryston.ca
FAX BRYSTON DIRECTLY: 705-742-0882
PHONE BRYSTON DIRECTLY: 705-742-5325

This warranty is 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 follow Bryston operating instructions.

This warranty gives you specific legal rights and you may also have other rights which may vary from province to province or state to state.

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