

OWNER'S MANUAL



JAS Bravo 2.4

Vacuum Tube Integrated Amplifier

NOTE: Before installing your new Bravo 2.4 audio amplifier, please read this manual carefully. It will inform you of the product specifications and also proper installation and operation procedures.

For additional requests

If you have any additional questions regarding the installation or operation of our products, you are welcome to contact us directly via email: " enquiry@jas-audio.com ", and please check frequently our JAS Audio official website: " <http://www.jas-audio.com> ".

JAS AUDIO HIGH FIDELITY Integrated Amplifier



Welcome to JAS Audio Family! This JAS Bravo 2.4 integrated amplifier is designed and manufactured to the highest quality standards. The design denotes performance, elegance, and simplicity. You will find this tube amplifier visually pleasing and easy to use without going through pages of instructions. IMPORTANT: before operating the unit, make sure you are familiar with the safety measures documented below.

Bravo 2.4 OWNER'S MANUAL

Introduction

Thank you for purchasing the JAS Audio Bravo 2.4 Integrated Amplifier. Standing on the chassis immediate in front of the transformer casing are two 5Z3P rectifier tubes. On either side of the chassis are two KT88 drive stage tubes for each channel output, whereas the two 12AT7 driver tubes and the only 12AU7 tube for signal amplification are in the middle. Overlaid with hand finished solid wooden board engraved with the Bravo logo and other indications, a stylish and elegant appearance is put in front of the audience. Made of aluminum alloy, the front panel of 8mm in thickness is a representation of coherence in design of making the chassis robust and the gear working with durability.

Preliminary

Bravo 2.4 features an aluminum alloy panel of 8mm in thickness that holds the on-off knob on the left, analogue volume control knob in the middle and the selector on the right. Signal input to four sets of RCA connectors is selectable by turning the selector

W A R N I N G



It is important to be careful with tube installation. Please do not force anything, easy does it! This precaution is mentioned to help you obtain pleasing results and avoid damage! If you have any trouble replacing or changing tubes, please don't hesitate to call your dealer!

Tube Replacement

Caution: Make sure the amplifier has been unplugged for 30 minutes from the AC mains before replacing the tubes, to avoid any risk of shock or discomfort from high temperature. Although tube life span varies depending on the nature and degree of use, under normal home use, the KT88 output tubes, the 12AT7 driver tubes and the 12AU7 signal amplification tube should last years in the Bravo 2.4.

Cautionary Terms



When the following cautionary terms are used in this manual, these definitions apply:

Electrical hazard! Misuse or failure to follow instructions properly may result in personal injury or death!

CAUTION: No risk of personal injury; however, misuse or failure to follow instructions may result in damage to equipment.

NOTE: No risk of personal injury or equipment damage; however, misuse or failure to follow instructions may prevent proper performance

NOS types of KT88, 12AT7, 12AU7, 5Z3P tubes will work fine in the JAS Bravo 2.4 Amplifier. The amplifier voltage settings will also work fine with all compatible types.

NOTE: LOOK CAREFULLY at the tube pins and socket and make sure that you insert the pins correctly. In most cases, replacing tubes presents no problem. The tube can be made to release by pulling it out gently (sometimes with a little back and forth wiggling). Nevertheless, it is possible to force the tube pins into the socket the wrong way! If you install the tube wrongly you will probably damage the amplifier and the tube. This kind of damage will not be covered by the manufacturer's warranty. If you have any doubts at all about this, please call your local dealer for help.

Unpacking before installation

All shipping containers have been specially designed to protect their contents and special care has been taken to prevent damage under normal shipping conditions. Mishandling should be evident upon inspection of the shipping container. If shipping damage is found after visual inspection, take care not to destroy the evidence. If necessary, document the damage with photographs and contact the carrier immediately.

Caution: On reception, carefully remove your new Bravo 2.4 from its packing carton and examine it closely for signs of shipping damage. It is recommended to save all original packing cartons and crates to protect your amplifier from damage should you wish to store it or ship it for after-sales service.

Installation and Set up

Three-way binding posts provide output to the speaker system (4 or 8 ohm connections). Power Requirements: The Bravo 2.4 is designed to operate from the AC mains (house current) and is pre-set in the factory according to local supply of the import region. A standard IEC AC power socket with a built-in fuse is provided on the back chassis panel.

Caution: There is a power on-off knob located on the left of the Bravo front panel. When it is at Power On position, the output tubes will light up.

Power On Operation

Your new amplifier is ready for operation after the speaker cables, interconnect cables and tubes have been correctly installed.

We recommended extreme high quality silver cables for speaker, interconnect, and power connections. Please ask your local dealer for additional information.

Features

- f Push-pull circuitry for dynamic sound with a balance in definition and texture in sonic performance
- f Selected and matched KT88, 12AT7 and 5Z3P tubes
- f Separate wide-band audio power and output transformers
- f All transformers are electrically isolated and mechanically shock-mounted
- f Additional internal damping material for added control of mechanical resonance
- f 4 and 8-ohm output impedance taps for optimum speaker impedance matching
- f Factory pre-set on Voltage Operations with fuse protects amplifier circuit in case of current overload
- f Bravo series tube amplifiers are handcrafted to meet high quality standards

Running-In Period

The tubes, capacitors and the output transformers take approximately 100 hours of music playing to fully settle in for peak performance. **Small imperfections in the tube surfaces will 'boil off' during the break in period as well.**

The amplifier will sound good right out of the box but it will improve as break-in occurs. After the first couple of hours you will notice increased depth and tighter bass. This break-in phenomenon is true of most high performance audio amplifiers.

Aftercare

The chassis may be cleaned with a soft towel cleaner. The frequency of cleaning will be governed by the cleanliness of the operating environmental. Spray the cleaner on the towel, not on the amplifier! Avoid abrasive cleaners! Feather dusters are good for cleaning the amp.

Limited Warranty

This product has been designed and manufactured to the highest quality and standards. However, if something does go wrong with this product, JAS Audio and its national distributors warrant, free of charge, labor (exclusion may apply) and replacement parts in any country served by an official JAS Audio distributor.

This limited warranty is valid for a period of 2 years from the date of purchase of an amplifier or six months for vacuum tubes.

Terms and Conditions

1. The warranty is limited to the repair of the equipment. Neither transportation, nor any other costs, nor any risk involved in removal, transportation and installation of products is covered by this warranty.
2. This warranty will not be applicable other than in case of defects in materials and/ or workmanship at the time of purchase and will not be applicable:
 - a. for damages caused by incorrect installation, connection or packing,
 - b. for damages caused by any use than described in the user manual, or by negligence, or by modifications, or by use of parts that are not made or authorized by JAS Audio,
 - c. for damages caused by faulty or unsuitable auxiliary equipments,
 - d. for damages caused by accident, lighting, water, fire heat, war, public disturbances or any other cause beyond the reasonable control of JAS Audio and its appointed distributors,
 - e. for products whose serial number has been altered, deleted, removed or made illegible,
 - f. if repairs or modifications have been performed by an unauthorized person.
3. This guarantee complements any national/regional law obligations of dealers or national distributors and does not affect your statutory rights as a customer.



How to claim repairs under warranty

Should service be required, please follow the following procedure:

1. If the equipment is being used in the country of purchase, you should contact the JAS Audio Authorized dealer from whom the equipment was purchased.
2. If the equipment is being used outside the country of purchase, you should contact JAS Audio National distributor in the country of residence who will advise where the equipment can be serviced.

TO VALIDATE YOUR WARRANTY, YOU WILL NEED THE ORIGINAL SALES INVOICE OR OTHER PROOF OF OWNERSHIP AND DATE OF PURCHASE.

Technical Specifications

| | |
|----------------------------|---|
| Product Model: | JAS Bravo 2.4 |
| Description: | Vacuum Tube Amplifier |
| Technical Features: | Push-pull circuit topology |
| Power Requirement: | AC 110/117, 220/240 @ 50-60Hz set factory pre-set for matching mains supply |
| Power Output: | 50W X 2 @ (4 Ω , 8 Ω) |
| Input Sensitivity: | 0.67V for 50W |
| Input Impedance: | 47K Ω |
| Frequency Response: | 10Hz (-0.5dB) --- 80KHz (- 3dB) |
| Total Harmonic Distortion: | \leq 1% |
| S/N ratio: | 90dB |
| Tube complement: | KT88 x 4, 5Z3P x 2, 12AT7 (CV455) x 2, 12AU7 x 1 |
| Static Power Consumption: | \leq 180W |
| Chassis Dimensions: | 430mm (W) x 330mm (D) x 185mm (H) |
| Packing Box Sizes: | 540mm (W) x 470mm (D) x 310mm (H) |
| Net Weight: | 20 Kgs |
| Gross/Shipping Weight: | 21.5 Kgs |



JAS AUDIO is constantly striving new design improvements, we reserve the right to change or modify product specifications without prior notice or obligation.

Note: All Bravo 2.4 amplifiers have their own serial number (S/N xxxxx), marked on the back of the chassis and also printed on the exterior of the packing box.

Happy Listening to all music lovers!

Best Regards,



Set your mind free!

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