



Audio Note

**KASSAI**  
**Balanced**

MONO POWER AMPLIFIERS

OWNER'S INFORMATION



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# ! IMPORTANT SAFETY INFORMATION !



**Danger**  
Electric shock risk

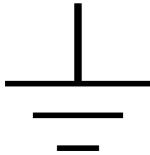
## **RISK OF SHOCK OR ELECTROCUTION! INTERNAL OPERATING VOLTAGES ARE LETHAL!**

Do not remove top cover, unless specifically instructed to do so in the user manual.

This unit contains fuses and other safety components in accordance with BS60065 requirements. In the event of failure, replacement fuse or safety component must be of the same part type and value.

## **SUCH REPLACEMENT MUST ONLY BE CARRIED OUT BY A QUALIFIED SERVICE TECHNICIAN.**

Do not attempt to replace any fuses without first disconnecting the unit from the mains electricity supply.



This product must be earthed – ensure that the mains supply cable earth / ground is correctly connected.



This product generates high levels of heat. Adequate ventilation must be provided. Do not restrict airflow through any ventilation slots or place the unit on any surface that may restrict airflow.

Valve equipment operates at extremely high temperatures;  
**KEEP OUT OF THE REACH OF CHILDREN AND ANIMALS.**



Do not store or operate this unit in areas of high humidity or in close proximity to water / moisture.

Do not expose or immerse the unit in liquid of any kind.

## **OTHER SAFETY PRECAUTIONS: -**

Never touch the power cord with wet hands.

Always remove the power cord by grasping the plug, not the cable.

Never expose the unit to excessive heat or magnetism.

Never let an inexperienced person repair or reassemble the unit.

Never put anything, especially metal objects, inside the unit.

Never place excessive weight on the unit.

# CE DECLARATION OF CONFORMITY



We declare under our sole responsibility that this product is in conformity with the following standards or standardized documents:

BS EN 60065 in accordance with the regulations 73/23/EEC, 89/336/EEC (from 1 January 1997)

CE 94

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## DISPOSAL

This product must not be disposed of as normal household waste. To prevent possible harm to the environment please separate the product from other waste to ensure that it can be recycled in an environmentally safe manner. Please contact your retailer or the appropriate local government office for collection facilities.

## POWER REQUIREMENTS

Power requirements for electrical equipment vary depending on your geographical location. Please ensure that your unit meets the power requirements in your area. The power requirement for your unit is marked on the serial number plate, located on the rear panel.

If you are in doubt, please contact your dealer before plugging the unit into the mains supply.

## INTRODUCTION

Thank you for purchasing this Audio Note (UK) product. With the correct care it should give you many years of pleasure and enjoyment.

Please take the time to read all of the information in this manual before connecting your new component to an electrical supply or your system, to ensure both your safety and satisfaction.

Please note that due to our desire to continually improve products, specifications are subject to change without notice. Therefore it is important to refer to the manual that is supplied with your product for the most accurate information; manuals downloaded from our website or obtained from other sources may no longer fully apply to your product.

If you have any questions regarding the information contained within this document or your new component, please feel free to contact us: -

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## KASSAI BALANCED MONO POWER AMPLIFIERS

Congratulations on your purchase of the Audio Note (UK) KASSAI Balanced mono power amplifiers.

They are Pure Class A Parallel Singled Ended valve amplifiers that use a pair of the highly regarded 300B triode valves per channel, producing a level of performance that is radically superior to the vast majority of current designs.

They have been specifically engineered for sonic performance rather than technical specification, and fulfill all Audio Note (UK) Level 4 criteria: -

- Pure Class A operation
- Zero Negative Feedback
- Single Ended Output Stage
- Valve Rectification
- Directly Heated Triode operation
- Materials and component quality

Each KASSAI Balanced amplifier is equipped with input and output transformers that are unparalleled in design, quality and performance at this price point in the field of Audio reproduction.

The balanced / XLR input transformers are hand wound by Audio Note (UK), and feature a copper primary and Silver secondary. The core material is of the highest quality, to offer the finest possible signal path from your preamplifier.

The output transformers are similarly specified, with a copper primary and Silver secondary. The cores are our own Double C design and are manufactured from our own UHiB material. As would be expected, they are custom designed and manufactured by us, in house in the U.K.

As is expected of an Audio Note (UK) Level 4 product, each amplifier is equipped with valve rectification, supplied by a selected 5U4GB valve.

## UNPACKING AND INSTALLATION

Please take care when unpacking your KASSAI Balanced amplifiers. Choose a clean, clear location to unpack them, and be aware that the amplifiers are very heavy; before attempting to unpack or lift the units, check the weight and if necessary use more than one person so that they can be moved safely and easily.

We recommend that you retain and carefully store all of the original packing materials, in case transportation / shipping is required at a later date.

Select a suitable location for the amplifiers. This should be a dry, dust free and level area, preferably shielded from direct sunlight and free from vibration. Also ensure that the location is stable and capable of supporting the weight of the units.

A suitable mains power outlet must be close to the location; power cords must not be pulled or stretched tightly in an attempt to reach a wall socket. If the power cord will not easily reach the socket, choose a closer location!

Please ensure that adequate ventilation for the amplifiers is provided, and that airflow through any ventilation slots in the casework is not restricted. We recommend a distance of at least 50cm free space is maintained above the amplifiers, and preferably they should be sited in free space or on the top shelf of your equipment rack or table. Please also remember that valve equipment operates at extremely high temperatures, so a position that is inaccessible to any children or animals is essential.

# VALVE INSTALLATION

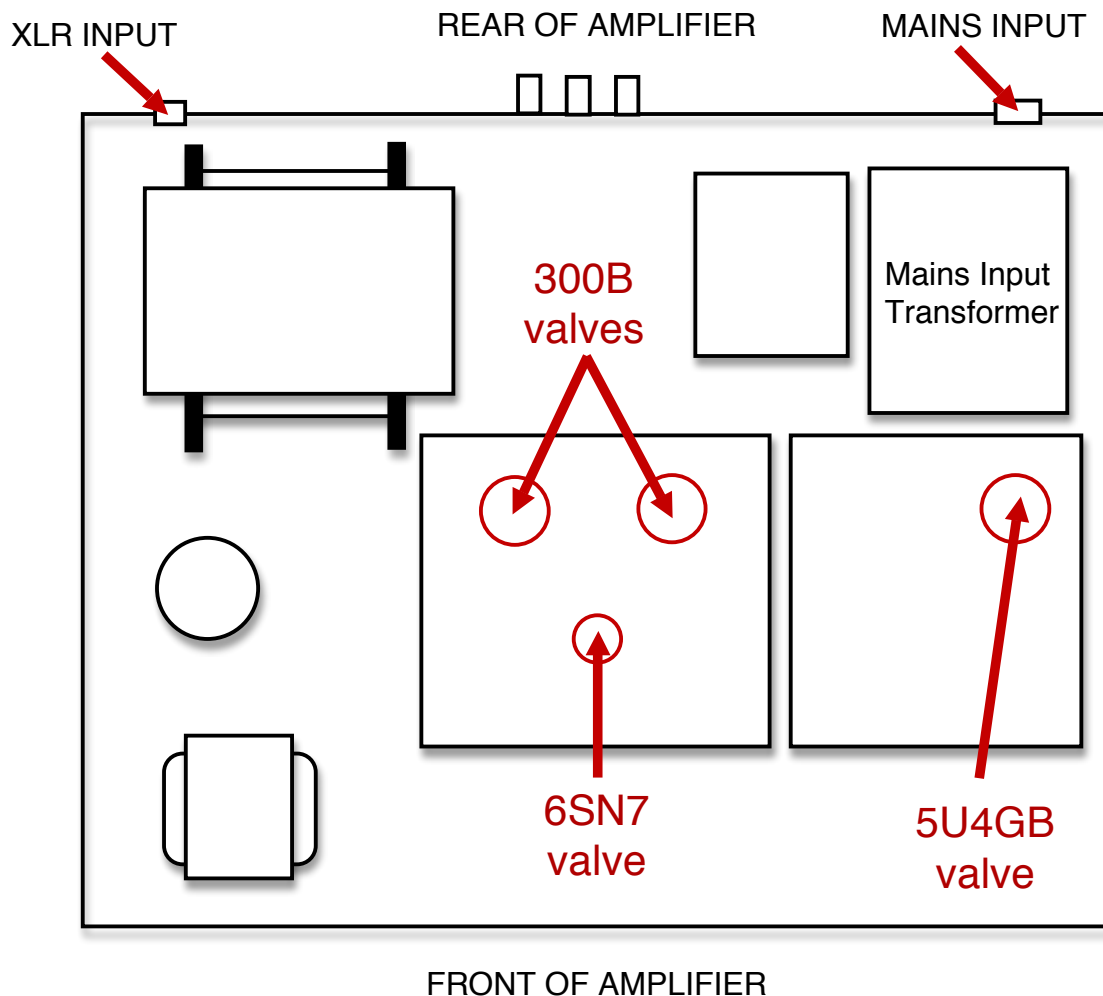
The amplifiers are shipped without their valve complement installed. It is necessary to install the valves before operation.

It is essential that the valves are installed correctly or ***serious damage that is not covered by the warranty will result.*** We recommend that your dealer perform this procedure for you if you are in any way unsure.

FIRSTLY, ENSURE THAT THE AMPLIFIERS **ARE NOT CONNECTED TO A MAINS ELECTRICAL SUPPLY**, AND THAT THE POWER CORDS ARE **NOT CONNECTED TO THE AMPLIFIER**.

Remove the top covers from the amplifiers. There are a total of 20 screws used to secure this cover on EACH chassis.

Now remove the valves that are packed separately and carefully unwrap them. Also inspect the amplifiers to check that nothing has become damaged or dislodged during transit.



In the above drawing, the positions of the valves are marked in **RED**.



## VALVE INSTALLATION continued...

You should find the following valves: -

2 x 6SN7 input stage valves

4 x 300B output valves

2 x 5U4GB rectifier valves

**Once again, please understand that it is absolutely vital these valves are fitted correctly.**

Looking from the front of the amplifier install the 300B valves first. Inspect a 300B and you will notice that two of the metal pins located at the bottom of the valve are larger than the other two; this is to help ensure that the valve can only be inserted one way.

Now examine the large valve sockets located at the rear of the central circuit board of each amplifier (refer to drawing on previous page). You will notice that two of the four holes in each valve socket are larger than the others. Line up the large pins on the bases of the 300B valves and the large holes in each valve socket, and with gentle but firm pressure insert each valve into its socket.

Next, examine the 6SN7 valves. You will see that there is a rib on the central pin of the valve, which ensures that it can only be inserted into the valve socket correctly. Insert these valves into the sockets located at the front of the central circuit board in each amplifier (refer to drawing on previous page). Locate this rib and align with the corresponding aperture in the centre of the valve socket. With gentle but firm pressure, insert the valve.

Next, examine the remaining 5U4GB rectifier valves. You will see that there is a rib on the central pin of the valve base, which ensures that it can only be inserted into the valve socket correctly. Locate this rib and align with the corresponding aperture in the centre of the valve socket, located on the right hand circuit board of each amplifier, in front of the mains inlet transformer (refer to drawing on previous page). With gentle but firm pressure, insert the valve.

**Check one more time that all of the 8 valves are correctly fitted!**

## CONNECTION

**Line inputs** Being mono power amplifiers, each KASSAI Balanced is fitted with a single XLR / Balanced input. Looking from behind the amplifiers, they are located at the top / right hand side of the rear panels. Connect the outputs from your preamplifier to these inputs.

If your preamplifier is equipped with RCA / Single Ended outputs only, please refer to the 'Cable Configuration Options' information on the following page.

**Speakers** Each amplifier is equipped with 3 colour coded binding posts for connection to your speakers. Looking from the rear of the amplifiers, the 3 binding posts are located at the centre of the rear panels.

Connect the amplifiers black speaker output binding post marked as "0" to the black / negative terminal (also marked " - ") on the loudspeaker.

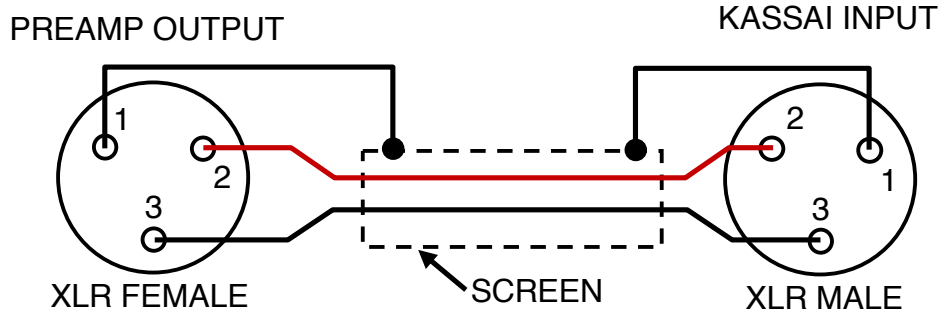
Connect the amplifiers red speaker output binding post marked "8 Ohm" to the red / positive terminal (also marked " + ") on the loudspeaker. The other red output binding post is marked "4 Ohm" and may be used with 4 Ohm speakers. If you are uncertain whether your speaker system is specified as 4 or 8 Ohm, try the following test once all other connections are made and the amplifier is operational. Compare the sound quality using a familiar recording with the speakers connected to the 8 Ohm connections and then the 4 Ohm connections respectively. The combination that produces the best frequency balance and maximum dynamics should be used.

**Mains** Each KASSAI Balanced is equipped with an IEC 320 mains inlet socket, located at the top / left hand side of the rear panel. Use the supplied mains cables to connect the units to the local mains supply. The two fuses are located in the two fuse holders, located on the rear panel beneath the 'speaker binding posts.

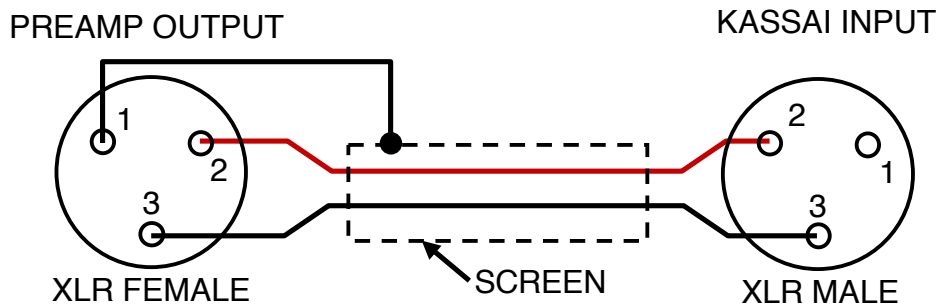
*Special Note – Make sure that all connections are tight and clean. For best results use good quality audio interconnects. Although it is perfectly acceptable to use cables manufactured by other companies, for best results and performance, we recommend our own Audio Note (UK) range of interconnects and loudspeaker cables. For further information, please consult your nearest Audio Note (UK) dealer, or alternatively please feel free to contact us directly.*

# CONNECTION continued...

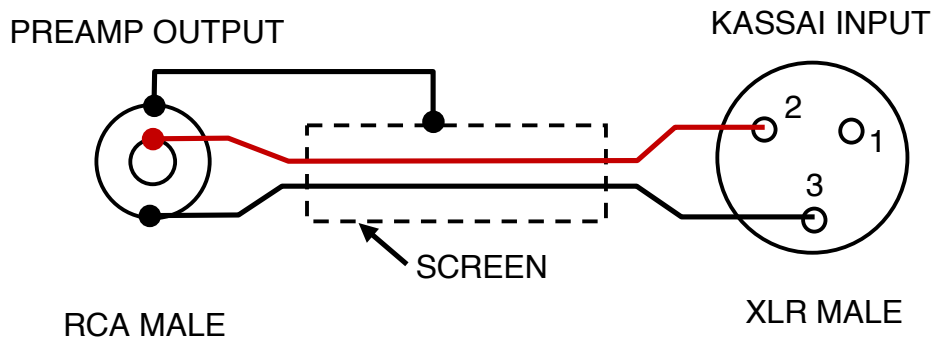
## CABLE CONFIGURATION OPTIONS



CONVENTIONAL: SCREEN CONNECTED AT BOTH ENDS



SCREEN CONNECTED AT PREAMP END ONLY, TO ELIMINATE GROUND LOOPS



CABLE CONFIGURATION FOR RCA SINGLE ENDED PREAMP OUTPUT TO XLR BALANCED AMPLIFIER INPUT

## OPERATION

Once all the connections are completed and checked, ensure that the volume control of your preamplifier / source is at the minimum setting.

Turn on all components in the signal chain BEFORE the KASSAI Balanced; they should always be the LAST components to be switched ON, and the FIRST to be switched OFF.

Turn on the amplifiers by using the rocker switch located on the rear top left of the back panels, just above mains inlet socket.

### **Bedding in**

The new amplifiers requires about 100 hours of initial use (called "bedding in") before the circuitry becomes stable and optimum performance is realized.

As the amplifiers "bed in" the sound will become increasingly smoother, detailed and open.

Once the amplifiers have "bedded in" a warm up time of approximately 30 to 45 minutes is required each time the amplifiers are switched on before optimum sonic performance is reached.

### **Cleaning**

No special maintenance is required for the amplifiers. Use a soft, clean lint free cloth to remove any surface marks from the casework. For finger marks / grease, use a soft, clean lint free cloth, lightly moistened with a solution of warm water and mild detergent. Do not use any alcohol or solvent based cleaning products, as they may damage the finish of the amplifiers.

**ENSURE THAT THE AMPLIFIERS ARE SWITCHED OFF AND DISCONNECTED FROM THE MAINS ELECTRICITY SUPPLY BEFORE UNDERTAKING ANY CLEANING.**

### **Valve Life**

The valves supplied with your amplifiers should provide approximately 6000 hours of operation. They are specially selected by us, and should only be replaced with matched pairs. Please consult your Audio Note (UK) dealer should your valves need replacing.

## TECHNICAL SPECIFICATIONS

<b>INPUT IMPEDANCE</b>	2.4 KOhm
<b>INPUT SENSITIVITY</b>	1.6V for full output
<b>MAXIMUM OUTPUT</b>	18 watts RMS per channel into 4 or 8 Ohm loads
<b>CHANNEL BALANCE</b>	+/- 0.3dB
<b>VALVE COMPLEMENT</b>	2 x 5U4GB 4 x 300B 2 x 6SN7
<b>UNIT WEIGHT</b>	25KG (per amplifier)
<b>SHIPPING WEIGHT (ORIGINAL PACKAGING)</b>	35KG (per amplifier)
<b>UNIT DIMENSIONS</b>	220mm (h) x 460mm (w) x 530mm (d)
<b>SHIPPING DIMENSIONS (ORIGINAL PACKAGING)</b>	420mm (h) x 650mm (w) x 670mm (d)
<b>MAINS INPUT</b>	AC 100-120V/220-240V 50/60 Hz
<b>MAINS FUSE</b>	3.5A Anti Surge (110/120V Supply) 1.6A Anti Surge (200/240V Supply) 400mA (Internal HT)
<b>MAX. POWER CONSUMPTION</b>	200 Watts
<b>NOTE</b>	Due to Audio Note (UK)'s ongoing research and development program, specifications are subject to change without notice.

## WARRANTY INFORMATION

Audio Note (UK) warrants this product to be free from defects in materials and workmanship for two years from the original date of purchase from an appointed Audio Note (UK) dealer, and agrees to cover the cost of parts and associated labour required to correct such defects, subject to terms & conditions.

This Warranty is offered to the first purchaser only.

Any valves supplied with the unit are warranted for three months from the original date of purchase.

If the product fails in normal domestic use and during the Warranty period due to the above described faults or defects, Audio Note (UK) will, at its discretion, repair or replace the item free of charge within a reasonable time once it has been returned to Audio Note (UK) or an appointed Audio Note (UK) dealer or service engineer.

Audio Note (UK) is not liable for any shipping charges incurred whilst transporting the product to or from Audio Note (UK) or an appointed Audio Note (UK) dealer or service engineer, should the item require service or repair during or after the Warranty period.

If the product must be shipped, please use the original packaging materials and include a copy of the original sales receipt along with a note explaining, in as much detail as possible, the problems you are experiencing with the unit.

**Only use a reputable Courier Service or Shipping Agent, and ensure that your product is insured during transit.**

**Any servicing, repairs or modifications not authorized by Audio Note (UK), or carried out by persons other than appointed Audio Note (UK) service engineers will invalidate any warranty.**

This Warranty does NOT cover: -

Damage sustained whilst in the possession of a shipping agent, retailer or consumer and not caused as a direct result of defects in materials or workmanship.

Damage caused by normal wear and tear.

Damage or defects caused by abnormal or unreasonable use.

Damage caused by accident, acts of nature, misuse or neglect.

Damage caused by a failure to follow the operating and installation instructions supplied with the product.

Damage caused by improper or careless cleaning.

Audio Note (UK) reserves the right to refuse warranty for any component of which the serial number has been removed, defaced or tampered with.

## CONTACT INFORMATION

If in the future your Audio Note (UK) product requires servicing, or if you require technical support or have any questions regarding this or any of our other products, please contact your local Audio Note (UK) dealer.

Alternatively, please feel free to contact us directly: -

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