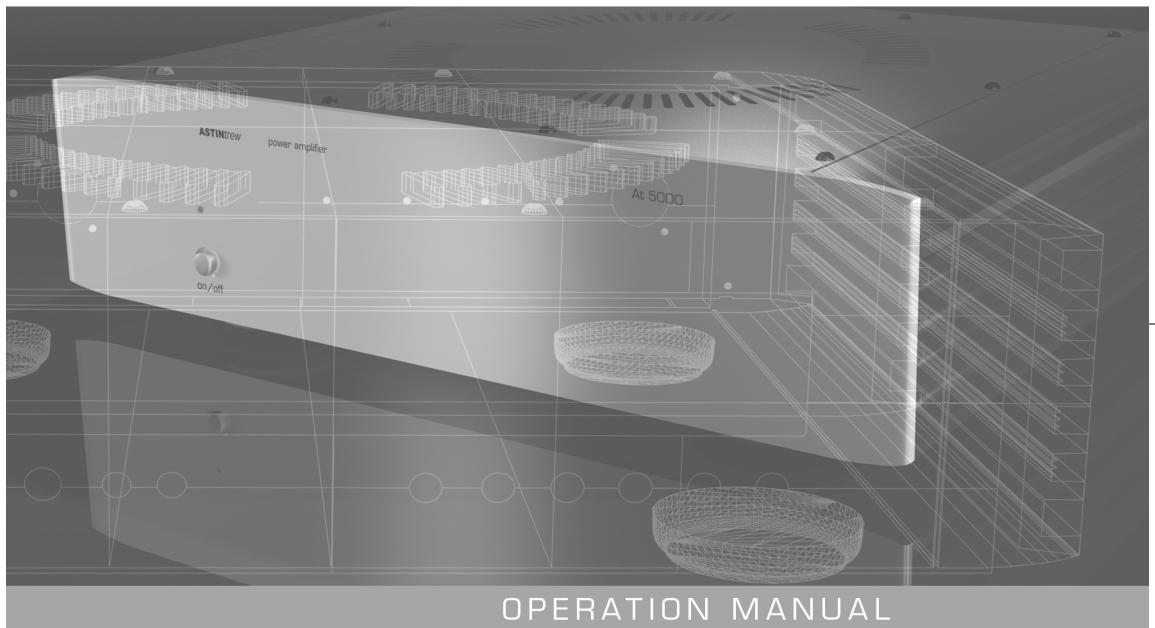


ASTIN*trew*

AT 5000 dual mono power amplifier



OPERATION MANUAL

ASTIN*trew*

6 Varnell Terrace
Hambleden Oxfordshire RG9 6SA

Telephone: +44 [0]1491 414494

Facsimile: +44 [0]1491 413303

Email: sales@astintrew.co.uk

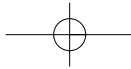
Website: www.astintrew.co.uk

ASTIN*trew*

True to the source

Operating information for the ASTINtrew AT5000
dual mono power amplifier.

SECTION	PAGE
1. Introduction	2
2. Unpacking	2
3. AC mains supply	2
4. Safe use	2
5. Set up	3
6. Operation	6
7. Valve and fuse replacement	6
8. Troubleshooting	8
9. Specifications	8
10. Guarantee	9
11. CE, RoHS and WEEE	9



1. Introduction

Congratulations on your purchase of the ASTINtrew dual mono power amplifier. This amplifier has been designed and manufactured to a very high specification making it a true audiophile product. It will give you many years of listening pleasure. The following notes explain all aspects of the user functions and will help you get the very best from it.

The ASTINtrew AT5000 power amplifier uses both valve and solid-state amplification devices within the design to offer an involving musical experience. As with all audiophile products, the other components you use within the chain will also affect the quality of sound you experience. This power amplifier deserves high quality ancillary components to give its best and works particularly well with other ASTINtrew range products.

2. Unpacking

Included with your ASTINtrew stereo power amplifier you will find:

- One mains lead with plug fitted.
- One Alan key.
- One operation manual.
- One spare fuse, located in fuse holder, see section 7.

Please retain all packing materials. Correct re-packing may be necessary if you wish to transport your amplifier in the future without risk of damage to the equipment.

3. AC mains supply

This amplifier is designed to work on a 220-240VAC supply only.

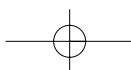
4. Safe use

This amplifier generates some heat when switched on. Do not place on a carpet or any material where the amplifiers feet may sink into the surface and obstruct the ventilation slots on the underside of the unit.

Do not place anything on the top of the amplifier which may obstruct the ventilation slots.

Do not allow liquids or objects to fall into the ventilation slots. If liquid does enter the ventilation slots, do not touch the amplifier, but immediately disconnect from the mains at the wall socket, then inform your dealer, who should check the unit before further use. Entry of liquids into the amplifier is dangerous and may cause electric shock or fire hazard.

The amplifier should be located in a



well ventilated area and kept away from sources of heat, dust, humidity and direct sunlight.

Do not attempt to change or alter any component or part of this amplifier except for those which are user replaceable (see sections 6 and 7). Unauthorised adaptations will void the warranty and may damage the amplifier.

Clean the outside surfaces with a dry lint free cloth. Some cleaning and polishing agents may cause marking to the surface finishes.

All electronics is susceptible to local lightening strikes affecting the mains cabling in your home. When not in use, the safest option is to remove the mains plug from the wall socket.

5. Set up

The mains lead supplied with has an IEC mains plug on one end which plugs into the amplifiers rear panel. The other end is fitted with an appropriate mains plug of your country. In the UK this is the standard UK13A plug.

The high-quality performance of this amplifier will be impaired if the electrical supply to it is in poor condition. We recommend that you use a high

quality wall socket directly, or a multi-way socket unit designed for audio use. If you live in an area with very 'dirty' or variable mains supply, you may also wish to try a power supply conditioner to optimize fidelity.

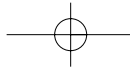
The RCA phono input connections should be connected to an appropriate pre-amplifier or other audio equipment with an output volume control. We recommend the use of high-quality signal cables for optimum performance.

Placing the equipment on an audio equipment rack, table or support, offering maximum isolation from mechanical vibration is recommended.

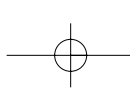
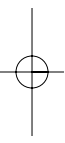
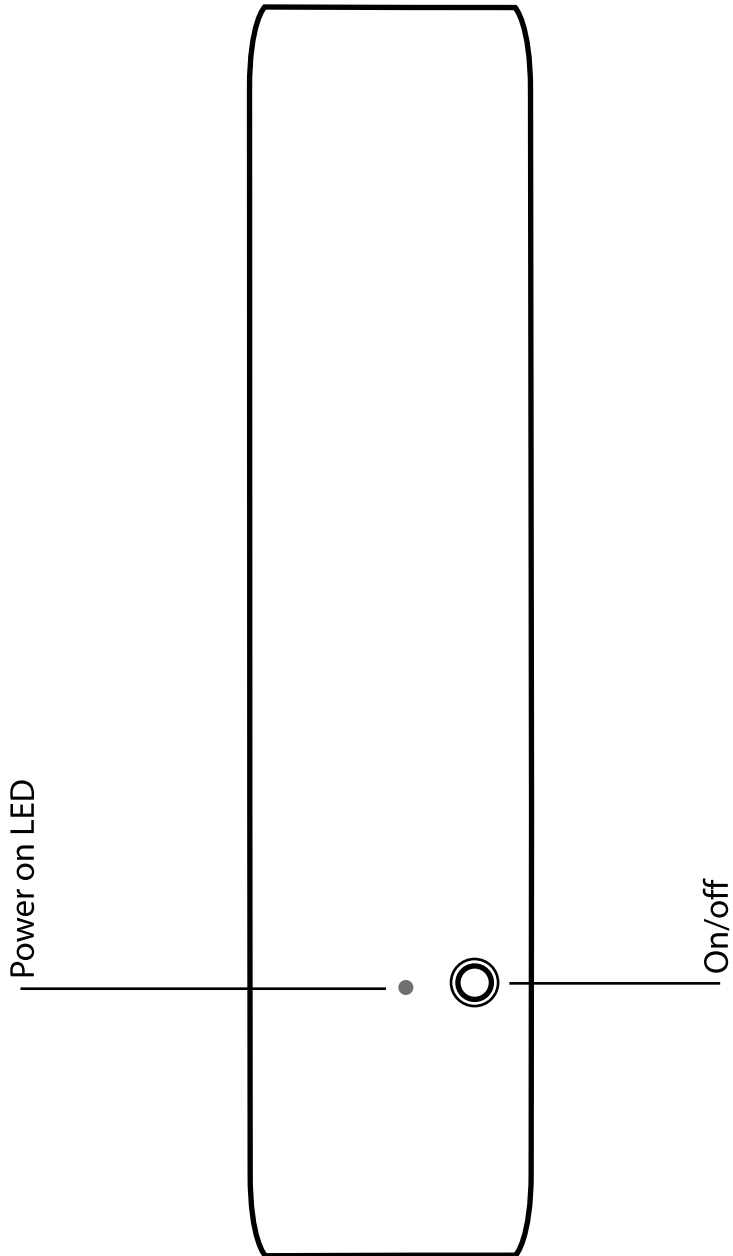
The loudspeaker connectors will accept either bare wire, 4mm banana plugs or spade terminals. Use high quality loudspeaker cables for optimum performance. There are two pairs of outputs for both channels, allowing you the option of bi-wiring your loudspeakers if they are designed for this option and you wish to experiment.

See Illustration, page 5.

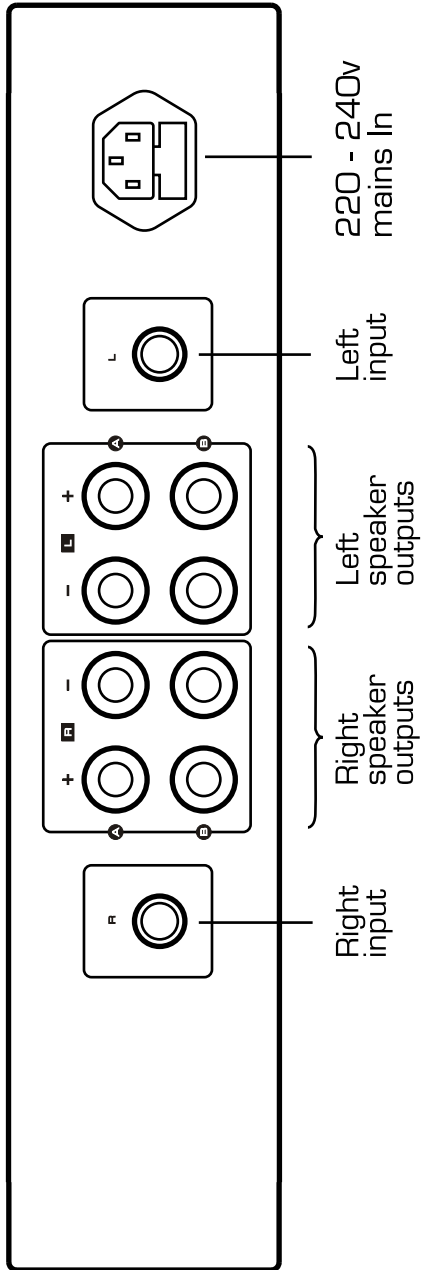
Ensure that the loudspeaker cables are fitted in phase. Do not short out the cables when in use as this may damage the amplifier.



AT 5000 front view



AT 5000 rear view



6. Operation

The power amplifier on-off switch is located on the left side of the front fascia. The blue LED light above the switch is illuminated when on. **See illustration, page 4.**

We recommend that the amplifier is turned on half an hour or more before you wish to use it. This is not essential but we think our amplifiers sound better once they have 'warmed up'. We do not recommend that you leave it on all the time but it will come to no harm if you do. From new, you will find that the amplifier will need up to 100 initial hours use to achieve its optimum audiophile sound.

The valves fitted have been selected to offer a high quality performance. If you wish to experiment with alternative manufacturers' valves, after the warantee period, replace with ECC 82 (12AU7) types. Other valve types may damage the amplifier.

In the unlikely event of the amplifier failing to work properly when first switched on please refer to troubleshooting in section 8.

7. Valve and internal fuse replacement.

Replacing or substituting the valves; or replacing the internal fuses in the unlikely event of failure, can be carried out by your dealer or distributor. If you attempt to replace either component, the following instructions must be adhered to.

Note: Dangerously high voltages are present inside the unit, when powered from the mains supply, that can kill.

NEVER open the amplifier when attached to the mains supply.

A. Disconnect the amplifier from all equipment and the mains supply. Place on a table or work bench with plenty of space around the amplifier.

Caution: Wait 1 hour before opening cover to allow the valves to cool and capacitors to discharge.

B. Undo the 10 x Alan screws in top plate with key provided, Put the screws somewhere safe.

C. Remove the top plate, place on a non-scratch surface to prevent marking.

You are now ready to replace the valves or the fuses.

Valve replacement. We recommend

the valves are replaced every 20,000 hours. This is conservative and perhaps represents a two-thirds life expectancy for these valves in this design.

This amplifier is designed to use the ECC82 (12AU7) valve only. This valve type is very unlikely to go out of production in the foreseeable future. There are a number of manufacturers offering this valve. Spare ASTIntrew valves can be purchased through your dealer or distributor.

As a guide, using this amplifier four times a week for an average four hours a session, for 48 weeks a year, we would recommended you change the valves every 20 years. If you leave your equipment switched on all the time, then we would recommend changing them every thirty months (two and a half years).

Changing valves: Valves run HOT when in use. Wait an hour after switching the amplifier off before changing valves.

The valve holders are attached to the printed circuit board, and the spring terminals that hold the valve pins are strong, so care has to be taken not to damage the board or valve when

removing or replacing them.

Do not pull or push the valve straight into / out of the holder. This could bend the circuit board and may result in damage. The correct way to remove / insert a valve is to pull / push gently whilst rocking slightly in a circular way (do not twist).

Remove by sliding, the white teflon valve dampers from old valves and fit on new valves in same position, near top of valve.

When inserting a valve, first ensure the pins are not bent on the valve. Locate the pins onto the valve holder correctly by aligning the 'spacing position' on both valve and holder.

Changing the internal fuses: The fuse holders and fuses are located close to the valves on the circuit board. Only replace with a 20mm glass 2 amp and 5 amp slow-blow fuses, as indicated on printed circuit board.

When finished, ensure no items such as tools or other parts are left in the amplifier; replace the top plate, noting the front and back screw positions are different, re-fit all 10 Alan screws. Take care not to over tighten and damage the screw head or key.

8. Troubleshooting

If the amplifier fails to work or you suspect it is not working properly, first check all connections to and from the amplifier. Check all the simple and obvious things first: power supply is on at wall, pre-amplifier and source components are switched on and working; loudspeaker cables are fitted and secured at both ends.

Below are some common problems, with suggestions for the possible cure. The list is not exhaustive. If you cannot resolve the problem yourself, please consult your appointed ASTIntrew dealer or distributor.

No power:

Check all power switches are on and power cable is secure in the back of the amplifier. Remove power cable from the amplifier and check the mains fuse, located in the mains input socket moulding.

No output:

Check there is a signal to the power amplifier. Re-check cable connections to the loudspeakers.

No output from one circuit:

Check all signal cables for that channel. Remove power cable from amplifier and check internal fuses, adhering to the instructions given in section 7.

Audible hum:

Check the components earthing in your hi-fi system. Discuss with your Dealer or supplier.

Poor stereo imaging and lack of base output:

Check polarity of speaker connections, particularly if you are bi-wiring.

9. Specifications

Designation:

AT5000 Dual mono power amplifier

Stereo power output:

50W RMS per channel (140W peak to peak) into
8 ohms
95W RMS per channel into 4 ohms

Power supply:

2 x 300VA Low noise Toroidal Transformers

Frequency response:

+ - 0.2 db 20-20,000 hz

Total Harmonic Distortion: 0.1

Input sensitivity: 610mv

Input impedance: 47K

Signal to noise ratio:

95 db A weighted

Internal fuse ratings:

2 amp and 5 amp slow blow 20mm glass

Valve

1 x ECC82 (12AU7) per channel
(20,000 hrs recommended replacement period)

Note - Output devices can withstand short circuit indefinitely, but not recommended.

Mains voltage:

220-240V at 50Hz. UK, mainland Europe and Asia.

AT5000 Dimensions:

W 430mm D 340mm Ht 110mm inc. feet.

Boxed weight: 15.5 Kg.

ASTINtrew reserves the right to make improvements or changes which may result in specification or feature changes without notice.

10. Guarantee

A two year guarantee is valid from the date of purchase, against any defect in materials or workmanship. Retain your receipt as proof of purchase. All claims should be made through your dealer or distributor under this guarantee.

The guarantee excludes:

A. All damage caused by accident, misuse, neglect, incorrect installation, adjustment or replacement of valves, non-authorised repair or service.

B. The Valves.

C. Injury, loss or damage to persons, property or products not covered by this Guarantee.

D. Liability for damage or loss during transit from the retailer or purchaser back to ASTINtrew or its authorised agent for the purposes of repair or inspection.

Carriage costs to ASTINtrew shall be borne by the consignor.

If the returned equipment is found not to be faulty, ASTINtrew reserves the right to make a charge for both the examination and return carriage.

This guarantee does not affect your consumer rights under English law.

11. CE, RoHS and WEEE

All ASTINtrew products comply with CE regulations.



When implemented into UK legislation, all ASTINtrew products will comply with the European RoHS Directive.

When implemented into UK legislation, all ASTINtrew products can be returned after use in accordance with the WEEE Directive. Contact your Dealer for further information.