

Audial

A21

STEREO AMPLIFIER

USER MANUAL

Revision 0, May 2023

This manual comprises introducing information on the use and performance of this device. For more information, please visit <https://www.audialonline.com/a21/>, or send your questions to info@audialonline.com.

IMPORTANT!

1. This manual is a guide only.
2. Do not expose this device to rain or moisture, excessive heat, or mechanical force.
3. Use this device exclusively with specified voltages.
4. Unplug the device from the wall outlet during a lightning storm.

WARRANTY

Audial claims the proper operation of this product for two years. Audial is obliged to correct for any malfunction within this period, at no charge, either by the competent repair service, or by swapping the sold unit with the new one.

For the units sold directly by Audial, the invoice is also a guarantee certificate. Audial however maintains its database of directly sold units, so the original buyers will not usually need it. Warranty is also fully transferrable from the original to the subsequent owner(s), however in this case we will probably ask for the invoice.



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.

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STARTING WITH THE A21

The A21 stereo amplifier is relatively simple to use and, provided it is used within its limits, it requires no special care in everyday operation.

It achieves claimed specifications right from the start, even though it still needs 5-7 days of burning in to perform its best in the subjective audio terms. Afterward, it is generally enough to leave it powered on for half an hour before the critical listening.

It is not harmful if A21 is left constantly powered up, however a general recommendation to turn such devices off whenever out of home applies regardless.

Also, it is important not to block the opening holes at the bottom, back, and top plate, as they provide air circulation into and from the unit interior, and thus ensure proper cooling.

CONNECTIONS

The A21 mains connector is standard IEC C14 and is located at the back panel. Every unit is produced to match the mains voltage in the customer's country.

The A21 is a balanced amplifier, however it sports both unbalanced and balanced inputs. Thus, on its back panel, there are three unbalanced RCA and two "Combo" connectors. These Combo connectors can accept both balanced (XLR or 6.3 mm "TRS" phone jack) and unbalanced sources (6.3 mm "TS" phone jack). The input impedance is 38 kOhm for unbalanced inputs and from each balanced pole to the ground, and 76 kOhm between the poles of the balanced inputs, so the A21 is a friendly load for the majority of sources.

The A21 employs also a buffered pre-out, which can be useful for bi-amping, or to connect the active subwoofer. This output is provided as an unbalanced RCA connection only.

The output loudspeaker connectors are Audial made pure copper binding posts, which accept the usual 6.3 mm spades or 4 mm banana plugs.

The A21 does not invert polarity (absolute phase). Hence with the source which also does not invert polarity, the speakers should be wired in phase.

The A21 also sports the ground connector. This ground is the chassis ground and can be used for cable shielding, or as a system earth connection. This connection should not be used as an audio ground / return path.

IMPORTANT: The A21 is a balanced amplifier, so both the positive and negative loudspeakers output connectors carry audio signals. Please, DO NOT connect the negative output to the ground!

USING THE A21

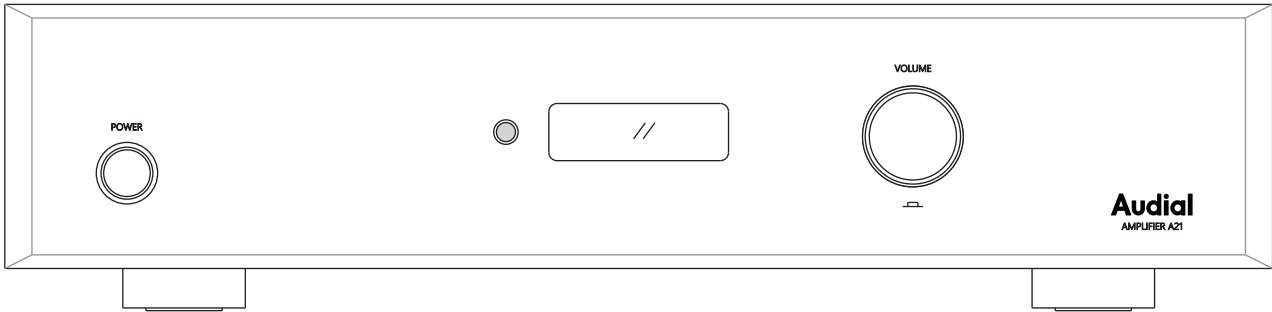
Apart from the mains switch, the A21 has only one control knob, which is both the volume and balance control, and the input switch. The amplifier settings are shown on the display.

Normally, the volume is set by rotating the knob. The volume is set in 1 dB steps, and has the "mute", and 63 steps between the 0 dB and maximum position.

The inputs are selected by pressing the knob.

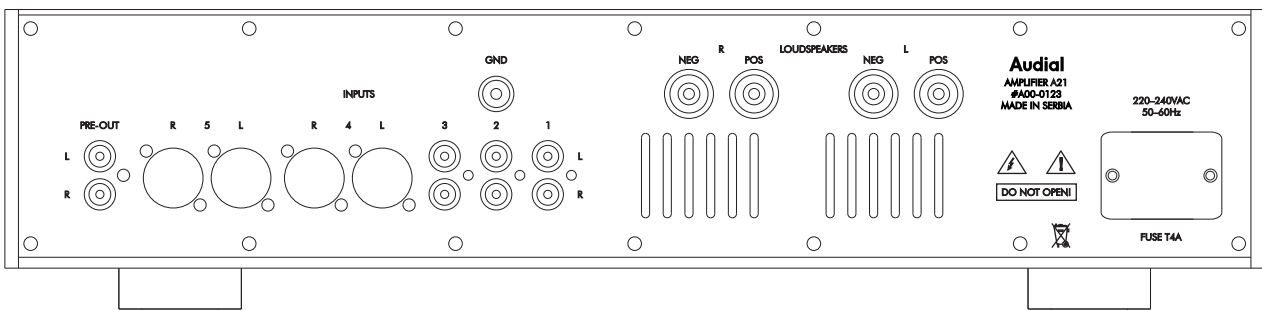
By long pressing the knob (for 2 seconds), the amplifier enters the balance menu. The display, instead of the volume position, in its second row then shows the balance position. The balance can be set in 1 dB steps (from "Center" to 31 dB left or right). By another long pressing of the knob (again for 2 seconds), or by its inactivity for 5 seconds, it will go back to the regular volume control operation. If the balance is set out of the center, the appropriate reminder will remain on the right side of the upper row of the display.

The volume and balance positions and input selection are non-volatile after the power off, that is, the same setting will apply on the next power-up. This however applies to the volume setting only if it was set for at least 5 seconds before the power off, to the balance setting only after exiting the balance menu, and to the input setting it applies unconditionally.



A21 front plate

From left to right:
Power switch, IR sensor, display, control knob.



A21 back plate

From left to right:
Pre-out, line inputs and ground connector above, loudspeakers outputs, mains connector with fuse.

SPECIFICATIONS

INPUTS:

3 x RCA

2 x Neutrik "Combo" – accept balanced XLR, or balanced (TRS) or unbalanced (TS) phone jack 6.3 mm

INPUT VOLTAGE:

Min 0.5 V RMS for full power

Max 4.5 V RMS (input overload)

INPUT IMPEDANCE:

@ unbalanced inputs: 38 kOhm

@ balanced inputs: 38 kOhm from each pole to the ground, 76 kOhm between poles

OUTPUT POWER: 100 W RMS @ 8 Ohm, 150 W RMS @ 4 Ohm

MAXIMUM OUTPUT CURRENT: 10 A

FREQUENCY RESPONSE: 20 Hz - 100 kHz, ± 0.5 dB

HARMONIC DISTORTION: 0.06%, across the audio band (worst case), @ 4 Ohm, full power

INTERMODULATION DISTORTION: 0.02% (SMPTE), @ 4 Ohm, full power

OUTPUT NOISE LEVEL: 35 μ V (-98 dB @ 1 W)

GAIN

Max gain between the input and speakers out: 68.9x (36.7 dB)

The ratio between pre-out and speakers output: 34.4x (30.7 dB)

Pre-out gain: 1.1x (0.8 dB), at volume max

PRE-OUT IMPEDANCE: 130 Ohm

ABSOLUTE PHASE: Correct, for both the loudspeakers and pre-out

MAINS VOLTAGE: 220-240 VAC or 110-120 VAC or 100 VAC / 50-60 Hz

IDLE POWER CONSUMPTION: 18 W

ALLOWED DC ON THE MAINS: 1.3 V max

DIMENSIONS (W x D x H): 467 x 330 x 112 mm, including feet, but excluding the knob and connectors

WEIGHT: 12 kg

