





AGD Productions, Inc.



Audion Mono-Block Amplifier

GaNTube™

by AGD Productions, Inc.



“The Audion” Mono-Block Amplifier

by AGD Productions, Inc.

Operating Manual

Rev.04.

Document Date, February 25th, 2020

CAUTION

THE UNIT CONTAINS NO USER SERVICEABLE PARTS.

DO NOT REMOVE THE PANELS OR ANY SCREWS OR CONNECTORS.

DO NOT OPERATE THE UNIT WITHOUT THE GLASS TUBE FULLY INSERTED IN THE PROPER SOCKET.

DO NOT OPERATE THE UNIT IF WET OR NEAR WATER OR IN UNCONTROLLED OUTDOOR CONDITIONS.

BE CERTAIN TO INSTALL IT IN A SECURE LOCATION FROM WHICH IT CANNOT FALL OR TIP OVER.

TIME SPENT FAMILIARIZING YOURSELF WITH THIS MANUAL WILL BE WELL REWARDED.



Table of content:

1. About this document.....	page 5.
2. Letter from AGD Team	page 6.
3. Important Safety Instructions	page 7.
4. Specifications.....	page 8.
5. Unpacking the AGD Audion.....	page 9.
6. Installation of the AGD Audion	page 10.
7. Back Panel Description	page 11.
8. Installation of the GanTube™	page 12.
9. Fault Conditions.....	page 15.
10. Voltage selector and fuse holder	page 16.
11. Troubleshooting	page 18.
12. CE and FCC Certification	page 19.



1- About this document

This Owner's Manual covers unboxing of, familiarization with, and configuration of your new amplifier. This manual will enable you to finely tailor the behavior and performance of your amplifier to fit your preferences of your equipment and listening room.

This user manual is integral part of the AGD "The Audion" and must be available and consulted prior the installation of the equipment.

The AUDION is designed to operate indoor and must be utilized uniquely for the scope of audio signal amplification within the specifications and conditions defined in the manual.

It is strongly recommended that you follow this manual in the order in which it is written so that you understand the safety considerations before configuring the amplifier.





Dear Customer,

I have always been driven by my passion to merge perfection and beauty in the art of Audio reproduction. The "GaNTube™ technology, and its application in the Audion" Hi-End Monoblock amplifier is the result of this long journey I began many years ago. Therefore, it is so important for all of us at AGD to thank you for choosing the AGD Audion Monoblocks for your unique Hi-End audio experience. The AGD Audion is one of the most advanced Hi-End Power Amplifier in the market. Among other remarkable innovations, it is also the second Hi-End Amplifier design to use the unique GaNTube™ technology. The first is its bigger sibling, the AGD "Vivace". The Gallium nitride components we choose, are the main reason for the stunning acoustic characteristics of "The Audion". The key elements of the GaN output power stage are integrated within a glass tube which not only delivers the unique look of "The Audion", but also allows the possibility for future seamless upgrades of the power stage. "The Audion" is a leading-edge power electronics design into an extremely compact mechanical solution, that delivers an unprecedented sublime and incredible realistic audio reproduction experience. We at AGD Productions are confident the AGD "The Audion" will meet your expectations and we will always stand in support of your needs and future requirements.

Sincerely

Alberto Guerra

CEO, AGD Productions, Inc.



3- Important safety instructions:



READ ALL INSTRUCTIONS: All the safety and operating instructions of your AGD VICACE MONOBLOCK AMPLIFIER should be read before power is applied to the equipment.

RETAIN OWNER'S MANUAL: These safety and operating instructions should be retained for future reference.

READ WARNING: All warnings on the unit and in the operating instructions should be adhered to.

FOLLOW INSTRUCTIONS: All operating and use instructions should be followed.

CLEANING: Unplug the unit from the wall outlet and leave for at least 10 min. - make sure the unit is not hot before you start cleaning. Use dry or damp soft cloth to clean the surfaces. Do not use corrosive/abrasive spray for cleaning.

VENTILATION: Do not block any ventilation openings. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including other amplifiers). The unit should not be installed in a built-in location such as a bookcase or rack unless proper ventilation is provided.

GROUNDING: Do not defeat the safety purpose of the grounding-type plug. A grounding-type plug has two blades and a third grounding prong. The third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

POWER CORD PROTECTION: Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

LIGHTNING: Unplug this apparatus during lightning storms or when unused for long periods of time.

SERVICING: Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as if the power-supply cord or plug is damaged, liquid has been spilled inside the appliance or it has been exposed to moisture, the appliance does not operate normally, or has been dropped.

DO NOT OPEN THE CABINET: There are no user serviceable components inside this product. Opening the cabinet may present a shock hazard and any modification to the product will void your warranty.



WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

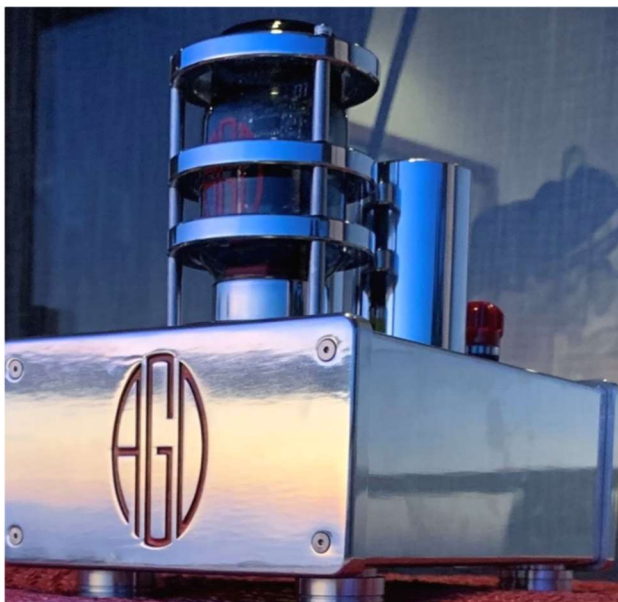


4- Specifications:

PARAMETERS

GaNTube™

Nominal Output Power at 0.1% THD+N, 20Hz÷20KHz, 4Ω	170W
THD+N 10W/1KHz	<0.005%
Maximum Output Power at 0.01% THD+N, 1KHz, 8Ω	85W
Bandwidth ±3dB	5Hz÷100KHz
Input Impedance	40kohm
Efficiency%	>94%
Output Noise (A-weighted)	≤ 25μV
Dynamic Range	>120dB
Dimension	7.5x5.5x7.5in (190x140x190mm)
Weight	6.5lbs (3.1kg)
Input Voltage	110-240V (user selectable)





5- Unpacking

Unpacking

All AGD products shipping boxes have been specially designed to protect their contents and special care has been taken to prevent damage under normal shipping conditions.

When unpacking your amplifier:

- Mishandling should be evident upon inspection of the shipping container.
- Carefully remove your new component from its packaging and examine it closely for signs of shipping damage.
- We strongly recommend saving all original packaging to protect your component from damage, should you wish to store it or ship it later.



CAUTION: In case of doubt **DO NOT** attempt to lift or move the power amplifier case without adequate assistance. The shipping weight of the amplifier may exceed what a single person should lift alone.



6- Installation

POWER REQUIREMENTS:

The amplifier is configured at the factory for 100, 115, or 230 VAC power operation at 50Hz or 60Hz. Before operating, ensure that the power label on the rear panel near the AC input connector indicates the correct operating voltage.

A detachable IEC power cable intended for use in the region where the unit is sold is included.



WARNING: The unit should be operated only at the rated voltage indicated on the power connector. If you are not sure what the main voltage supplied to your home is, consult with your unit dealer.

- Connect the power supply to the power source indicated on the rear panel.
- Avoid power conditioners that float the ground pin.
- ALWAYS connect power cord to component before plugging it into an AC outlet and make sure that unit's main switch is set to the "OFF" position before making the final connection.
- For best performance, try to position the power cord away from the input signal cables.
- Pay close attention to power quality and be aware that different power cords can alter the sound.
- For initial power-up, operate the main switch located on the back-panel power entry module.
- BE CERTAIN TO INSTALL THE UNIT IN A SECURE LOCATION FROM WHICH IT CANNOT FALL OR TIP OVER.
- Do not operate on carpet or any other surface that might block air flow.
- Do not allow the chassis to touch any metal parts, such as the frame of an equipment rack. This might create a parallel ground path that could degrade the sound of your system.
- Connect the source's cables to their appropriate inputs.
- Connect your speakers using the binding posts on the center of the back panel.



IMPORTANT: READ THE SECTIONS "BACK PANEL"



7- Back Panel

The AGD Audion back panel has the following features:

- ① **Power entry module**
- ② **fuse holder**
- ③ **Input Voltage Selector**
- ④ **ON-OFF Switch**

- a. Plug the power cord securely before turning on the unit.
- b. Always unplug the unit from the wall outlet first.

⑤ ⑥ **Speaker binding posts**

The binding posts can accept large speaker cables either via std. banana plugs or by locking the exposed copper wire directly.

Take extreme caution and make sure to always have a very secure and tight closure of the binding post to minimize contact resistance and maintain a stable connection.

- ⑤ **+ RED SPEAKER OUTPUT POSITIVE TERMINAL**
- ⑥ **- BLACK SPEAKER OUTPUT NEGATIVE TERMINAL**

⑦ **Analog input selector switch**

We recommend changing the input selection when the input signal is not present, or before powering up the unit.

- ⑧ **RCA Single ended analog input.**
- ⑨ **XLR Balanced analog input.**



8- Installation of the GaNTube™

The Audion units are delivered with the GaNTube™ pre-installed, so the user does not need to make any additional effort in the preparation of the units. However, in case there will be the need to re-insert a new GaNTube™, the following steps shall be followed. All operations described in this paragraph must be executed with the unit completely unplugged from the power mains. Place the unit over a flat table or in the final position where is going to be used and make sure the unit is turned off from the power switch. Disconnect the power cord in case it is connected. The GaNTube™ is a delicate glass tube, fragile in nature. The utmost attention must be taken while extracting it from its wooden box. The octal socket has a reference slot to facilitate the orientation of the glass tube when inserting it in the base socket of the AGD Audion mono-block.



- 1- Position the GaNTube™ over the base socket with the reference slot of the octal base properly matching the base socket.
- 2- Gentle press the tube from the top, until it is fully inserted in the base.
- 3- Make sure the GaNTube™ position is vertical, and it does not bend in any direction (if it does, it means is not fully inserted).
- 4- Repeat the operation for the second unit, as described.
- 5- The units are setup with the input voltage selection of the country of destination (i.e. 115V for USA, Japan or 220V for Europe, South America, etc.).



- 6- Before powering-up the unit, make sure the voltage indicator of the power-entry module ❶ indicates the correct voltage



If unsure, DO NOT POWER UP the amp and seek advice.

- 7- Connect the speaker cables.



- **Caution! Be careful to not short the positive and negative outputs together.**
- **Do not short the positive or negative outputs to chassis or any other safety ground.**

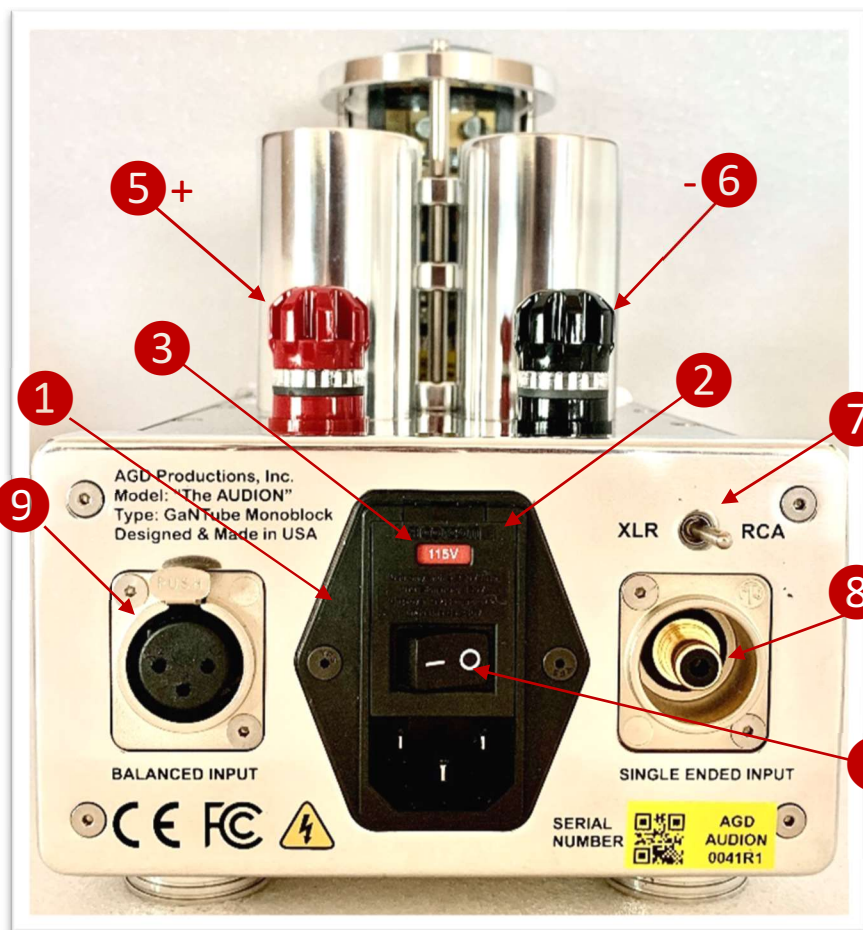


- **The amplifier must be powered off during installation and whenever input and/or output cables are being connected.**
- **Caution! DO NOT OVERTIGHTEN the binding posts. High-contact, tight pressure connections are achieved when finger-tightened.**

- 8- Connect the input signal to the RCA Single Ended input socket ❸ or to the XLR balanced input socket ❹ based on the preferred standard of the source in use.
- 9- Position the switch ❺ accordingly to the input of choice. In other words, oriented up Right the RCA input, or left for the XLR balanced input.
- 10- Turn-on the units by the main on/off switch
- 11- At this point, the GaNTube™ will display a soft amber light through the glass.
- 12- The Audion is ready and functional.
- 13- If the light is not visible, check if the power cord is properly inserted in the wall socket and in the power entry module and if the power switch is in the ON position.
- 14- If no change occurs, disconnect the power cord and control the position of the voltage selector and the fuses.
- 15- If power does not come up, contact your authorized service representative.



The Audion Monoblock Input connectors





9- Fault Conditions

The unit is designed to prevent damage to itself and associated components. These extensive features protect both the critical circuitry of the amplifier itself and shield connected loudspeakers from serious damage due to high power levels.

Basic protections designed into the amplifier include fuses to protect against excessive current conditions, such as driving shorted outputs. Inrush limiting prevents premature aging of the power supply components during power-up; once the power supply has been charged, this feature goes offline until the amplifier is powered up again. The amplifier actively monitors operating temperature, output current demands, and the presence of DC on the outputs.

The amplifier will shut down under any of these conditions and report the fault via red LEDs.

NON-CRITICAL FAULTS

Non-critical faults are indicated by a RED LED on the back side of the GaNTube™. They are neither caused by nor harmful to the amplifier. Non-critical faults either clear themselves over time (such as over temperature) or are easily remedied by the owner without dealer or factory intervention (such as shorted speaker terminals).

Examples of non-critical faults are:

- Heatsink or internal temperature is above safe operating limits
- DC detected at input
- Shorted speaker terminals or extremely low impedance load connected

If a non-critical fault occurs, check the speaker cables and terminals and the operation of the preamp in the system.

Turn off the AC power to clear the fault and then turn the unit on again after fixing the issue.

If the amplifier is too hot, wait for it to cool down.

When it reaches a safe operating temperature, you will be able to turn it on again.

If you are unable to remedy a non-critical fault condition, please contact your retailer or installer for assistance.



10- Voltage selector and Fuse installation/replacement

The AGD Audion is delivered with the mains input voltage selector positioned for the country of delivery, hence i.e. 110V for USA and Japan, 220V for Europe, China and UK,

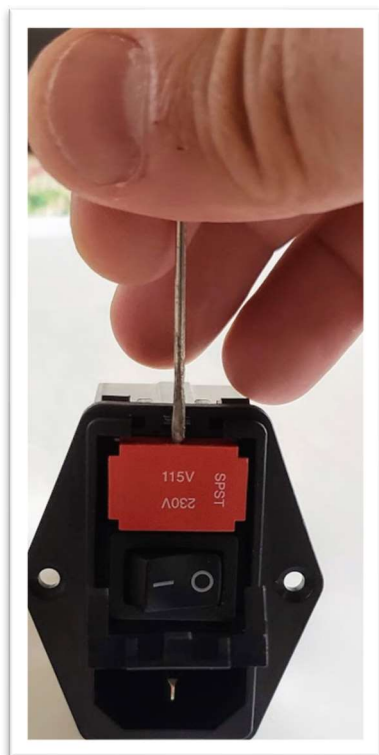
If the unit needs to be operated in a different country, with a different input main voltage than the one visible on the IEC power entry module, the voltage selector on the power entry must be positioned correctly.

The voltage selector block also contains the fuse holder and it is accessible by opening the plastic cover that holds it within the IEC power entry module, as shown in the following picture.

The plastic door and the fuse holder can be opened and extracted by hand; however, it is recommended to use a small flat screwdriver or the tip of a pen to facilitate the operation.



The fuse holder can be opened and extracted by hand; however, it is recommended to use a small flat screwdriver or the tip of a pen to facilitate the operation.





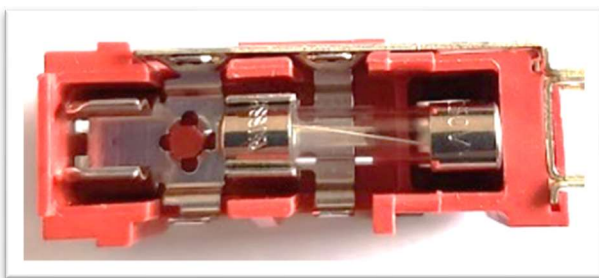
The Voltage selection is done by extracting the voltage selector block and re-inserting it with the voltage label readable (not upside down) and then closing the plastic door.



In case of a change of the input voltage of operation, please make sure the correct fuse is used:

- For 230 volts operation, 2A or 2.5A “Slow Blow” fuse is used.
- For 115 volts operation, 4A or 5A “Slow Blow” fuse is used.

The fuse is placed inside of the voltage selector block and it is easily accessible once the module is fully extracted. Please refer to the following picture:



In case you need to replace the fuse, make sure to select only a version with the correct amperage as described: 2A Slow-blow for 220/240V operation and 4A Slow blow for the 110V operation.



All operations that involve voltage input selection changes, or fuse replacement, must be done after disconnecting the power cord from the mains.



11- TROUBLESHOOTING

Incorrect operation is sometimes mistaken for malfunction.

If problems occur, see this section for troubleshooting information. If problems persist, contact your authorized AGD Productions' dealer.

NO POWER

- Examine the power cord to ensure that it is connected to both the AC mains connector and a working, un-switched, electrical outlet.
- Make sure the amplifier is powered on with the rear-panel power switch. Examine the electrical circuit breaker to ensure that power is being supplied to the electrical outlet to which the amplifier is connected.
- Make sure the amplifier is not in fault condition. Faults are indicated by red LED flashing on the back side of the GaNTube™.

NO SIGNAL AT THE OUTPUTS

- Examine all audio cables to ensure a solid connection between the amplifier and all associated components.
- Examine the speaker cables to ensure a solid connection between the amplifier and the amplifiers.
- Make sure that the connected speakers are operational.
- Make sure the volume is set to an audible level.
- Make sure the GaNTube™ is correctly inserted in the socket.
- Make sure the preamp is not muted.
- Make sure all associated components are connected to working electrical outlets and powered on.
- Make sure the source device connected to the amplifier's selected input is producing an output signal.

AUDIO HUM

Disconnect components one at a time to isolate the problem.

Once the problem is identified, make sure the problematic component is properly grounded and connected to the same electrical socket as the amplifier.

IF ALL ELSE FAILS...

Contact your authorized AGD Productions, Inc. Dealer and/or contact AGD Productions Customer Service at www.AGDproductions.com.



12- CE Compliance Certificate

UE Statement of Compliance

Dichiarazione di Conformità UE

Manufacturer : **AGD Productions, Inc**

2644 Via Valdes
Palos Verdes Estates
90274 CA (USA)

Product name: **AGD “The Audion”
Power Amplifier**

Standards : EN 55032 : 2015 Class-B
EN 61000-3-2 : 2014
EN 61000-3-3 : 2013
EN 55024: 2010
EN 60950-1: 2006 + /A11:2009/A1:2010 + /A2:2013
+ /A12:2011

The manufacturer declares that the product complies with specified above and meets the essential requirements of the Directive: 2014/30/UE (EMC), 2014/35/UE (LVD), 2011/65/UE (RoHS)



Palos Verdes Estates, April 15, 2019

Alberto Guerra, President and CEO AGD Productions, Inc.

