





AGD Productions, Inc.



# **“TEMPO” di GAN**

## **Stereo Reference Amplifier**

### **by AGD Productions, Inc.**



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## **Operating Manual**

Rev.01

Document Date, November 25<sup>th</sup>, 2021

## **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.



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## 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 optimize 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 "TEMPO" and must be available and consulted prior the installation of the equipment.

AGD "TEMPO" 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 GaN MOSFET technology gave me the opportunity to commence this journey in the Hi-End Audio. Therefore, it is so important for all of us at AGD to thank you for choosing the AGD “TEMPO” di GaN for your unique Hi-End audio experience. The AGD “TEMPO” is one of the most advanced Hi-End Power Amplifier on the market today. Among other remarkable innovations, it is also our first STEREO Hi-End Amplifier design to use the unique GaNPower modular technology. The Gallium nitride Power MOSFETS components we choose are the main reason for the stunning acoustic characteristics of the AGD TEMPO. The key elements of the GaN output power stage are integrated in a dedicated board, the AGD GaNPower Module, that allows the possibility for future seamless upgrades of the power stage. The AGD “TEMPO” is a leading-edge power electronics design into an extremely compact mechanical solution, that delivers an unprecedented sublime and incredibly realistic audio reproduction experience. We at AGD Productions are confident the “TEMPO” di GaN 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- Introduction:

### AGD “Tempo” di GaN Reference Stereo Amplifier

#### Design Philosophy

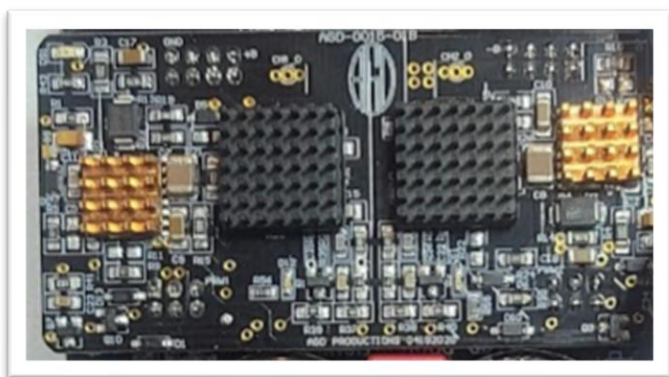
The AGD “TEMPO” Stereo Amplifier, is the new addition to our state of the art Hi-End Power Amplifiers family. The “TEMPO” is our first compact Stereo Amplifier.

The AGD TEMPO uses the same fundamental technology pioneered with the AGD Vivace, the first Hi-End amplifier based on Gallium Nitride power MOSFET, the award winning AGD THE AUDION and The AGD GRAN VIVACE.

The AGD “TEMPO” is rated 200+200W 4Ohm (100W+100W 8Ohm) and 400W 4ohm in bridge mode configuration (mono-block operation).

To achieve these performances in such compact CNC machined cabinet, we have designed a new GaN-based output power stage with a new mother board that contains the low noise power supply and all the analog buffer stages, small enough to enable these outstanding minimalistic footprints.

As for all AGD amps, the GaN-based power stage module utilized in the AGD TEMPO is fully upgradable. That means when future generations of GaN devices with improved technology will be available, AGD will offer a new GaNPower module option to maintain the full value of the product in time. Moreover, the TEMPO can operate also in bridge-mode delivering in this configuration twice the nominal stereo output power, 400W on 4ohm.



Thanks to a world-class PCB design, a refined selection of top-quality audio grade components, and the extremely efficient GaN-based power stage we achieved the design's goal to operate this integrated Stereo Version of at >600kHz as main PWM frequency. The higher PWM frequency operation delivers a direct and positive impact on the overall outstanding sonic and musical performances with sublime mid-high range realism along with the unique tight and controlled bass register.





## 5- Specifications:

### PARAMETERS

Nominal Output Power at 0.1% THD+N, 20Hz÷20KHz, 4Ω	200+200W
THD+N 10W/1KHz	<0.01%
Maximum Output Power at 0.01% THD+N, 1KHz, 8Ω	100+100W
Audio Bandwidth ±0.5dB	20Hz÷20KHz
Bandwidth ±3dB	5Hz÷80KHz
Input Impedance	40kohm (600ohm upon request)
Efficiency%	>94%
Bridge Mode Max output power 4Ω	400W
Power Stage Gain	23db
Dynamic Range	>120dB
Dimension	11x3.75x7.1in (280x95x180mm)
Weight	10lbs (5kg)
Input Voltage	100-240V (auto-switch)





## 6- 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.



## 7- Installation

### POWER REQUIREMENTS:

The amplifier is configured for 100, 115, or 220/240 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.

- 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
- Make sure to have the input selector positioned on the correct connector of choice (XLR or RCA)
- For initial power-up, operate the main switch located on the back-panel power entry module.
- Push the push-button ④ on the front panel, a LED will illuminate the logo. This push-button if pressed again will also place the unit in stand-by without the need to operate the main-power switch.



**IMPORTANT: READ THE SECTIONS "BACK PANEL"**



## 8- Back Panel

The AGD “TEMPO” back panel configuration is perfectly symmetrical and offers easy access to both the single ended and Balanced inputs connectors. The inputs (completely independent) are selectable via toggle switch. The stereo-bridge switch enables the operation of the amplifier in bridge mode as 400W monoblock power stage (input signal via the right-channel input).

Two sets of super rugged solid copper binding posts, specially designed by AGD, and the connections for remote trigger input and output (12V DC only – mono 3.5mm jack) complete the back panel configuration.

The AGD “TEMPO” back panel has the following features:

**❶ Power entry module**

**❷ Fuse holder**

**❸ Main Power Switch**

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

**❺ ❻ ❽ ❿ Speaker binding posts**

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

**❺ + RED SPEAKER OUTPUT POSITIVE TERMINAL** - Right Channel

**❻ - BLACK SPEAKER OUTPUT NEGATIVE TERMINAL** - Right Channel

**❽ + RED SPEAKER OUTPUT POSITIVE TERMINAL** - Left Channel

**❿ - BLACK SPEAKER OUTPUT NEGATIVE TERMINAL** - Left Channel

In case of bridge mode operation, the LEFT positive terminal **❽** is the positive output and the Right positive terminal **❺** is the negative output.

Please pay particular attention not to connect any of these outputs to ground nor use this output configuration to connect to the input of any sub-woofer unit. This will simply damage the unit and may nullify the warranty terms.



## **9 Analog input selector switch: XLR-RCA**

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

## **10 STEREO-BRIDGE mode operation**

We recommend operating the STEREO-BRIDGE SELECTOR only with the unit in power-off status. When in Bridge mode, the amplifier operates as single mono-block power amp, hence 1 amp per channel is required.

## **11 12 XLR Balanced analog input – Right & Left Channel.**

Balanced Analog input: recommended for the optimal performance and in case of longer 1mt connections from the source.

## **13 14 RCA Single ended input - Right & Left Channel.**

Single ended Analog input: recommended only in case of short connection if the source has no balance output.

## **15 Trigger input-output connector.**

The AGD TEMPO can be operated in REMOTE Stand-by with a 12V DC input applied to the Trigger input connector. A single mono 3.5mm jack is needed for the operation.

For user convenience a secondary trigger output is available to connect in daisy-chain other amplifier units (the trigger output of one amplifier connected to the trigger input of the following unit).

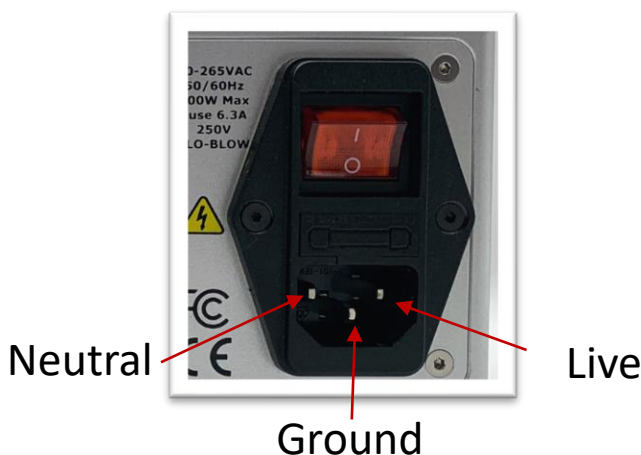




The AGD “TEMPO” is delivered with 1.5mt. power cord with either US or UK or EU IEC standard plug.

The power cord provided as standard with all AGD amplifiers is an **Audio Grade** power cable manufactured and tested under specific characteristics from AGD Productions. In case the customer decides to utilize a different power cable to operate the unit, please make sure that the correct cable with proper size for current handling and signal norm is strictly observed.

Please refers to the following detailed picture



Any alteration of the power entry module or the use of a cable non-conforming to international safety standard or the use of the unit without the proper ground connection can be dangerous, and among other things damage the unit itself with the consequence to null the terms of the manufacturer warranty.



## 9- Operation

- 1- Connect the speaker cables to the speakers binding posts

**5 6 7 8**



- **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.**

- 2- Connect the input signal to the RCA Single Ended input socket **13 14** or to the XLR balanced input socket **11 12** based on the preferred standard of the source in use.

- 3- Position the analog input selector switch **9** accordingly to the input of choice. In other words, oriented up for the XLR balanced input, or down for the RCA single ended input.

- 4- Turn-on the units by the main on/off switch.

- 5- Press the stand-by switch **4** on the front panel.

- 6- The AGD TEMPO is ready and functional.

- 7- If the stand-by switch logo is not illuminated, 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.

- 8- If no change occurs, disconnect the power cord, and control the fuses.

- 9- If power does not come up, contact your authorized dealer representative.

- 10- If the dealer is not providing within 24hrs any answer, contact directly AGDproductions by sending an email to the following address: [agdsupport@agdproduction.com](mailto:agdsupport@agdproduction.com)



## 10- 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.

### NON-CRITICAL FAULTS

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.





## 11- Fuse installation/replacement

The AGD “TEMPO” is configured to operate with the mains input voltage of any country, hence i.e., 100/110V for USA and Japan, 220/240V for Europe, China, UK, and all other countries.

The main power switch entry module also contains the fuse holder, and it is easily accessible by opening the plastic cover that holds it 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.

Only the inner fuse is operative, the second is for spare.

The fuse is placed inside of the block, and it is easily accessible once the module is fully extracted.

Please refer to the following picture:



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.

In case of a change of the input voltage of operation, please make sure the correct fuse is used. In case you need to replace the fuse, make sure to select only a version with the correct amperage as described:

- 3.5A Slow blow for 220/240VAC.
- 6.3A Slow blow for the 100/110VAC.



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



## 12- 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.

### 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 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](http://www.AGDproductions.com).



## 13- CE Compliance Certificate

### ***Statement of Compliance***

**Manufacturer :**     **AGD Productions, Inc.**  
Palos Verdes Estates  
90274 CA (USA)

**Product name:**     **AGD “TEMPO”**  
**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)*



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**It's "TEMPO" di GaN Now!**