# GLENN

## PARALLEL SINGLE-ENDED MONO POWER AMPLIFIER
## WITH EXTREME FLEXIBILITY


# User's Manual

www.trafomaticaudio.com


VU
GLENN
VU
GLENN

# Table of Contents



# SAFETY PRECAUTIONS

## IMPORTANT SAFEGUARDS PLEASE READ CAREFULLY ALL THE FOLLOWING IMPORTANT SAFEGUARDS THAT ARE APPLICABLE TO YOUR EQUIPMENT.

**CAUTION! NEVER REMOVE PROTECTIVE TUBE COVER. PROTECTIVE GLASS MUST BE INSTALLED AT ALL TIMES. NO USER SERVICE ABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

## SAFETY

**Read the User's Manual and refer to it frequently during use of this product.** All the safety and operating instructions should be read before the product is operated.

**Retain the User's Manual.** The safety and operating instructions should be retained for future reference.

**Follow Instructions.** All operating and instructions for use should be closely followed.

**Power Sources.** This product should be operated using only the type of power source indicated on the marking label. If you are not sure of the type of power supply in your home, consult your product dealer or local power company.

**Grounding.** This product is equipped with a three prong IEC connector. Always use power cord with adequate wire cross section and an electrical outlet that is grounded. If you do not know whether the outlet is grounded, consult your electrician or local power company.

**Power Cord Protection.** Power supply cords should be routed so that they are not likely to be walked on or pinched. Pay particular attention to cords at plugs, convenience receptacles and where they exit from the product. Always use power cords with adequate current ratings and safety certifications (UL, CE, TÜV, CSA, etc.)

**Fuses.** For continued protection against fire hazard, replace fuses with the same type and rating of the fuses specified. When changing fuses, completely unplug the AC cord from the wall outlet. If in doubt what fuses to use, contact factory or authorized distributor.

**Tubes.** During operation, the vacuum tubes get very hot. Allow at least 60 minutes after removing power for tubes to cool down. Only after 60 minutes you can remove the protective tube cover, if tube replacement is required.

**Cooling.** To ensure proper ventilation, there should be nothing placed on top of the unit. Ventilation holes should be unobstructed with at least 12" (300mm) of empty space above and around the unit.

**Turn-off when not using for prolonged periods of time.** The amplifier should be turned off when not attended. That extends tube life, saves power and prevents any potential hazardous conditions.


VU
GLENN

# ENVIRONMENT

**Water and Moisture.** Do not use this product near water - i.e. near a bathtub, ash bowl, kitchen sink or laundry tub; in a wet basement; or near a swimming pool or the like. Damp basements should be avoided.

**Heat.** The product should be situated away from heat sources such as radiators, heat registers, stoves or other appliances that produce heat. Also avoid putting the unit in the direct rays of the sun. **For indoor use only.**

# PLACEMENT

**Accessibility.** It is normal for an audio device to run warm if used for prolonged periods. Always place your device away from children and pets to prevent burns.

**Ventilation.** Proper ventilation is critical for safe and reliable operation of all vacuum tube based equipment. This product should not be placed in a built-in installation or rack unless proper ventilation is provided or the manufacturer's instructions have been followed. Never place anything on top of your unit that could obstruct airflow and cause vacuum tubes to overheat and damage the unit. Do not place your unit in a closed bookcase; overheating could occur. Ensure that there is at least 12" (300 mm) of open space above and around the unit.

**Surface.** Place the unit on a flat level surface. Care should be taken to prevent objects from falling and liquids from spilling into the unit. Do not subject the unit to excessive smoke, dust, vibration or shock.

# MAINTENANCE

**Cleaning.** Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a dry cloth for cleaning. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzene.

**Tube replacement.** Vacuum tubes have life in the 10,000 hours range. We recommend replacing the tubes after 36 months, if necessary, depending on your listening habits. That will ensure that the unit always performs at its best and tube failure will not overstress other parts of the unit.

**Biasing the amplifier.** The GLENN amplifiers have automatic tube biasing. No user action required.

# SERVICE

**Replacement Parts.** When replacement parts are required, be sure that the service technician uses replacement parts specified by the manufacturer or parts with the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

**Tube replacement.** Should it become necessary to replace the vacuum tubes, remove the AC power plug from the wall and allow sixty minutes (60 min) for the tubes to cool down and high voltage capacitors to discharge. Follow instructions outlined below in the section "Handling vacuum tubes". The protective tube cover with glass panels should only be removed after the 60 minutes period.

**Modifications.** Modifications to the amplifier are strongly discouraged. The unit was designed by experienced engineers and tested for safe and reliable operation. Any modification may pose a safety risk and result in reduced lifetime of the product. Opening the amplifier will void warranty.

# GETTING STARTED

# ABOUT YOUR AMPLIFIER

Your **GLENN Power Amplifier** was designed to provide a true high-end performance which is a result of carefully designed circuit and optimized component selection. The design utilizes the highest quality parts, including custom designed transformers and chokes which are the result of Trafomatic's 20+ years of experience in this field. The GLENN sits firmly on top of the Trafomatic's product lineup, challenging competition in any price range.

The design is based on **parallel-connected 300B direct-heated triodes (DHT)** operating in pure Class A. **The 300B tubes are paired with a professional E182CC tube**. **Rectifier tube is the highly-acclaimed 5U4G**. This combination of tubes and matching transformers offers 12-26W of unrestrained output power with all the sonic benefits of single-ended amplifier configurations.

The GLENN offers unmatched flexibility to fine tube sound quality for best match to different speakers and listening tastes.

Fit and finish of the GLENN are complementing its impressive sound quality and make it a center of attention in any audio setup.

The GLENN has one balanced (XLR) and one unbalanced (RCA) input. There are outputs for four (4) and eight (8) ohm speakers.

## HANDLING AND REPLACING VACUUM TUBES

Many people have never had experience handling vacuum tubes. Process is very similar to handling incandescent light bulbs. As with the light bulbs, you should not touch a vacuum tube when it is operating since you can burn yourself. Similarly, if a tube is dropped on a hard surface it may break or change critical operating parameters.
**When replacing the tubes, allow sufficient time, minimum 60 minutes, for tubes to cool down** and internal capacitors to discharge. Only then you can remove protective cover with glass panels and carefully remove the tubes.
**Before you insert a tube** you should **make certain that the unit is disconnected from the AC outlet**. Inspect the tube for cracks and physical damage. Make sure that the pins are straight. If you need to straighten the pins, be very careful as it may cause the glass envelope to break, causing the tube to lose the vacuum and fail as soon as the units powered on. Carefully align the pins with the socket and gently insert the tube.
Replace the protective cover before connecting **GLENN** to the AC power.

**Never force a tube into a socket.**

Thanks to the exceptional flexibility the GLENN can use all currently available 300B tubes. The tube choice should be followed by an appropriate setting of maximum dissipation, as suggested by the tube manufacturer. For more details refer to the description of the front panel controls.

Should you decide to buy replacement tubes from Trafomatic Audio, rest assured that they were fully tested before the shipment.

# PACKAGING

Save the original packaging in a dry place. The packaging has been designed to protect your device from stresses incurred during shipping.
Using packaging different from the original increases risks of shipping damages.

# PREPARATION FOR USE

- Place your unit on a flat, stable surface.
- Power switch, located on the rear side of the unit should be in the OFF (0) position.
- Plug in the power cord.
- Connect audio source to one of the amplifier's inputs.
- Make sure that volume control on your audio source is set to minimum position.
- Turn on the **GLENN** by using ON/OFF power switch located on the rear side of the unit.
- Allow 30 seconds for the tubes to warm up.
- Slowly increase volume, to make sure there are no unusual noises coming out of the speakers.
- **CONGRATULATIONS**! You are all set and ready to enjoy high sound quality of the **GLENN Mono Power Amplifier.**


trafomatic
audio
VU
standby
off
instrument
GLENN

# CONTROLS AND THEIR FUNCTIONS

## FRONT PANEL

A quick look at the front panel uncovers many possibilities for customizing the GLENN to fit many speakers and listening tastes.

- A large multi-purpose back-lit **instrument** occupies central position on **GLENN's** front panel. In conjunction with the Instrument switch it can be used to monitor bias of the output tubes, as a VU or power meter or it can simply be turned off. In normal operation, with properly biased good tubes, the needle on the instrument should be somewhere in the range of -1 to +1 on the top scale, or even slightly higher if the higher tube dissipation setting is selected.

- **Standby switch**: when this switch is in the **stby** position high voltage is turned off and only filament power is on. That makes it possible for **GLENN** to start quickly, after the standby switch is moved to the **ON** position. Recommended use of the Standby mode is when turning on the **GLENN** and before turning it off, and during longer breaks in listening sessions, as this extends life of the tubes.

- **Instrument** switch: this rotary switch has four positions:

  - **OFF:** the front panel instrument is turned off

  - **Bias V1** and **Bias V2** are used to adjust or monitor bias of output tubes V1 and V2, respectively

  - **VU**: in this position the instrument is used as a VU meter or Power meter

- **300b plate dissipation (w)** switch can be used to set plate dissipation of the output tubes where four settings are possible: 18, 22, 28 and 32 Watts. This switch ensures that GLENN is compatible with every 300b tube available on the market, from our favorite Mesh Plate 300b to 300B XLS. When setting plate dissipation, the tube manufacturers' recommendation should be followed. Here are few examples of recommended plate dissipation settings:

  - Mesh Plate 300B: 18W

  - Western Electric: 22W

  - Electroharmonix, JJ, Sofia and similar: 28W

  - EML XLS: 32 W

- **Feedback** switch determines the amount of negative feedback (NFB) applied to the power stage; it can be set to one of the four positions marked 0 (no NFB) and -1dB to -3dB, higher number denoting more negative feedback applied. This setting makes it possible to optimize output characteristics of the GLENN to suit many different speakers.