## LARA Line Level Preamplifier



### Table of Contents

| Section                         | Page No. |
|---------------------------------|----------|
| Safety Precautions              | 02       |
| Getting Started                 | 05       |
| About Your Line Preamplifier    | 05       |
| Packaging / Preparation for use | 06       |
| Controls and Their Functions    | 80       |
| Front Panel                     | 80       |
| Rear Panel                      | 10       |
| Servicing                       | 11       |
| Technical Specifications        | 12       |



#### SAFETY PRECAUTIONS

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

#### **CAUTION!**

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE SCREWS. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

#### **SAFETY**

- 1) 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.
- 2) **Retain the User's Manual** The safety and operating instructions should be retained for future reference.
- 3) Follow Instructions All operating and instructions for use should be closely followed.
- 4) **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, con sult your product dealer or local power company.
- 5) **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.
- 6) **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.)
- 7) **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.
- 8) **Turn-off when not using** Turn off the unit as soon as you stop actively using it. Unplug the power supply from the wall during a lightning storm or when the product is to be left unattended and unused for longer periods of time.



#### **ENVIRONMENT**

- 1) **Water and Moisture.** Do not use this product near water i.e. near a bathtub, ash bowl, kitch en sink or laundry tub; in a wet basement; or near a swimming pool or the like. Damp basements should be avoided.
- 2) **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.
- 3) For indoor use only.

#### **PLACEMENT**

- 1) **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.
- 2) 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 preamplifier that could obstruct airflow and cause vacuum tubes to overheat and damage the unit. Do not place your preamplifier in a closed bookcase; overheating could occur. Ensure that there is at least 6" (150 mm) of open space above the preamplifier.
- 3) **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**

- 1) **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.
- 2) **Tube replacement.** Vacuum tubes have life in the 5000 hour range. We recommend replacing the tubes after 24-36 months, depending on your listening habits. That will ensure that the preamplifier always performs at its best and tube failure will not overstress other parts of the unit.
- 3) **Biasing the amplifier.** Biasing of the LARA preamplifier is not required.

#### **SERVICE**

- 1) **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.
- 2) Tube replacement. Should it become necessary to replace the vacuum tubes, remove the AC power plug from the wall and allow thirty minutes (30 min) for the high voltage capacitors to discharge. Follow instructions outlined below in the section "Handling vacuum tubes".
- 3) 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 poses safety risk and result in reduced lifetime of the product. Any removal of the cover will void warranty.

## GETTING STARTED - ABOUT YOUR LINE PREAMPLIFIER

Your **LARA Line Level Preamplifier** was designed to provide high value based on its high performance, which is a result of a carefully designed circuit and optimized component selection. The design utilizes minimum number of active parts and top quality passive elements. The LARA was conceived as a preamplifier with recognized Trafomatic Audio sound quality while occupying more affordable price level.

The design is based on a very linear 6N30P vacuum tube and features maximum gain of 20dB. The preamplifier operates in Class A with custom designed output transformers. A dedicated power supply is housed in a separate chassis, for maximum separation. LARA preamplifier comes with a standard, beautifully crafted remote control.

The LARA has three (3) single-ended (RCA) and two (2) balanced (XLR) inputs, single-ended (RCA) and balanced (XLR) stereo outputs. Subwooferoutput is provided in stereo configuration. As a valuable feature, phase reversal and ground lift switches are also available on the rear panel.

#### HANDLING AND REPLACING VACUUM TUBES

Many people have never had experience handling vacuum tubes. Process is very similar to handling in candescent 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 and removing the preamplifier's cover, allow sufficient time, minimum 30 minutes, for tubes to cool down and and another and capacitors to discharge.

Before you insert a tube you should make certain 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 preamplifer is powered on. Carefully align the pins with the socket and gently insert the tube.

Never force a tube into a socket.

The **LARA** preamplifier is designed around the 6N30P vacuum tube as a gain stage. When the tubes are due for replacement, please contact Trafomatic Audio or authorized dealer for recommendations about substitutes.

Should you decide to buy replacement tubes from TrafomaticAudio, rest assured that they are 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 preamplifier on a flat, stable surface.
- Power switch, located on the left side of the power supply unit should be in the OFF (0) position.
- Make sure that the voltage selector switch (located on the rear panel, next to the AC inlet) is properly set: this switch needs to be set so that the number displayed (115 or 230) corresponds with the line voltage in your country.
- Connect the power supply unit with the preamplifier unit by using provided power cable.
- Plug in the power cord.
- Connect LINE OUT of the LARA to line inputs of your amplifier. If applicable, connect subwoofer to the SUB OUT connectors.
- Connect your audio sources to the preamplifier's inputs (L1 through L3 and XLR1, XLR2).
- If some of your sources require signal grounding (turntable tonearm, for example), connect the wire to the grounding lug (GND) on the rear panel of the preamplifier.
- By using the front panel input selector switch, select the appropriate audio source (L1 through L3 and XLR1, XLR2).
- Make sure that volume control is set to minimum position.
- Turn on the LARA by using power switch located on the left side of the power supply unit.
- Turn on your power amplifier.
- 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 LARA Line Level preamplifier.



lara





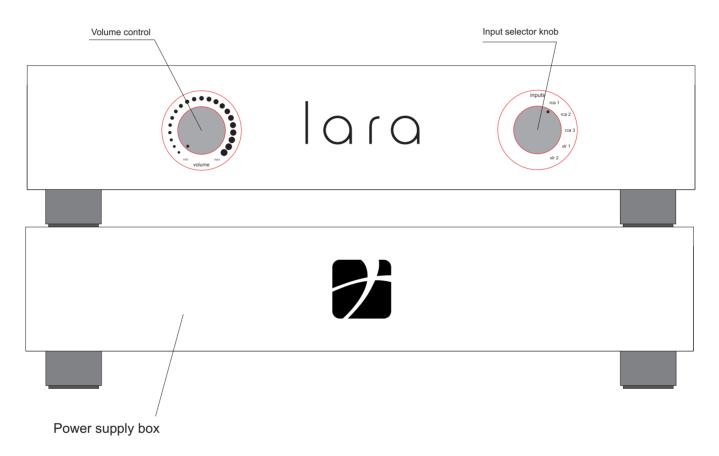
#### **CONTROLS AND THEIR FUNCTIONS**

#### **FRONT PANEL**

**Input Selector**: The five positions "Inputs" switch is used to select one of the five available inputs, marked (rca1 through rca3 and xlr1, xlr2).

Volume control: regulates maximum outputs on the LINE OUT and SUB OUT outputs.

The front panel has window for the remote control receiver.



#### **LEFT SIDE OF THE UNIT**

Power ON/OFF switch: The switch turns the preamplifier ON and OFF

- When turning on the preamplifier, make sure that the volume control is at its minimum. The preamplifier will be fully functional after only 30 seconds. However, as it warms up over the first 15 minutes of operation, you may notice subtle improvements in the sound quality.
- At the end of your listening session, make sure to turn the amplifier off. Leaving it turned on does not improve sound quality and it reduces life of the vacuum tubes.
- The preamplifier should always be turned on and off via its own power switch.
- The left side also has the power on light

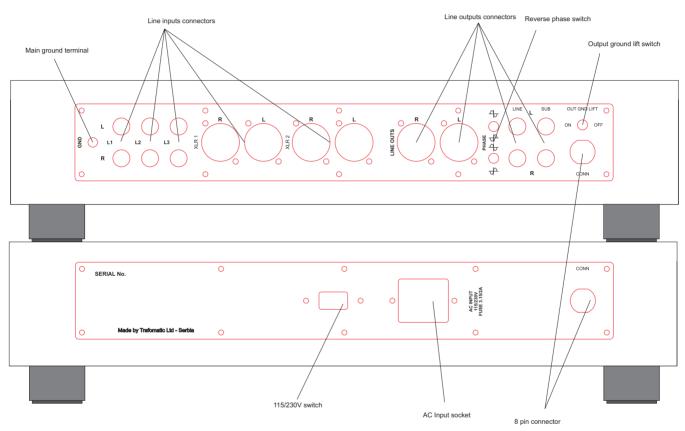


#### **CONTROLS AND THEIR FUNCTIONS**

#### **REAR PANEL - POWER SUPPLY UNIT**

The only control on the rear panel is the line voltage selector switch located next to the AC power inlet (AC INPUT). This switch needs to be set so that the number displayed (115 or 230) corresponds with the line voltage in your country.

#### **REAR PANEL – PREAMPLIFIER UNIT**



#### The rear panel also hosts:

- Grounding lug (GND)
- Threesingle-ended RCA inputs (L1, L2 and L3)
- Two pairs of balanced XLR inputs (XLR1, XLR2)
- One pair of balanced XLR outputs (LINE OUTS)
- Two switches for reversing phase of the output signal (PHASE)
- Single-ended RCA outputs (LINE)

- Stereo subwoofer RCA outputs (SUB)
- Output grounding lift switch (OUT GND LIFT): in some configurations, grounding of the system can configure so-called "ground loops". In certain situation, this causes increased hum in the system. Ground lift switch is used to break the "ground loop" while maintaining safety afforded by proper system grounding. NOTE: never use the so called "cheater plugs" to remove ground from the system, as it creates potentially hazardous conditions.
- Power supply connector

#### **SERVICING**

High quality parts and careful design of the LARA ensure long and reliable operation without need for any maintenance other than that listed in the MAINTENANCE section. In an unlikely case that the unit does not operate as intended, please contact factory or your local distributor for assistance.

#### **CAUTION**

Lethal voltages are present inside the amplifier. Do not remove the preamplifier's covers. Servicing of the unit should be performed only by authorized service personnel.



#### REMOTE CONTROL

**LARA** comes with its own dedicated remote control circuit. For the sake of simplicity, reliability and long battery life, basic functionality is provided via two buttons: volume up and down.



#### **TECHNICAL SPECIFICATIONS:**

#### **LARA - LINE LEVEL PREAMPLIFIER**

Class of operation: Fully balanced Class A with line output transformers

**S/N:** – 88dB

Inputs: 3 x RCA, 2 x XLR

Outputs: 1 x RCA, 1 x XLR,1 x Sub Out independent

Output Impedance: 1KOhms, XLR and RCA Frequency Response: 10Hz - 67KHz (-1dB) Vacuum Tube Complement: 2x 6N30P

Power supply: Low Induction toroid transformer by Trafomatic Audio, High Inductivity

custom made chokes, **Mundorf MLytic HV** type **Requirements:** 230V/50Hz -115V/60Hz switchable

Power consuption: 80VA

Weight: 10 kg

**Dimensions:** 400 x 310 x 100 mm



