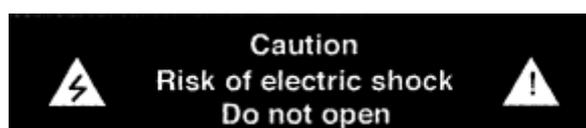


# LinearX Tube Headphone Amplifier

## SAFETY INSTRUCTION

To avoid personal injury or damage to equipment, please ensure that you read this manual in its entirety before attempting to operate the equipment. Please retain this manual for future reference.

TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT UNDER ANY CIRCUMSTANCES REMOVE ANY PARTS OF THE EQUIPMENT COVER. THERE ARE NO USER SERVICEABLE PARTS INSIDE. ALLSERVICING MUST BE CARRIED OUT BY QUALIFIED SERVICE PERSONNEL.



 This icon marks a presence of un-insulated “dangerous voltage” within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

 This icon marks important operating, maintenance and service information that should be read to prevent possible personal injury.

## WARNINGS

### Do Not Disassemble

Do not attempt to service the equipment beyond that described in this manual. Touching the equipment's internal parts could result in severe personal injury. All other servicing or problems as listed below should be referred to qualified Consonance service technicians:

- The power supply cord or plug has been damaged.
- Objects have fallen or liquid has been spilled into the equipment.
- The equipment does not appear to function normally or exhibits a marked change in performance.

- The equipment has been dropped or the enclosure damaged.  
Do not under any circumstances allow anyone to modify your Consonance equipment without first checking with Opera Audio, your dealer, or your distributor. Unauthorized modifications will invalidate your guarantee.

### **Power Source**

The equipment should be connected to a power supply only of the type described in this manual or as marked on the equipment.

### **Grounding or Polarization**

Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the amplifier.

### **Ventilation**

The equipment should be situated so that its location or position does not interfere with its proper ventilation.

1. The equipment must not be placed on bed, sofa, or similar surfaces that may block the ventilation openings.
2. The equipment must not be placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air.
3. The equipment should be situated away from heat sources such as radiators, heat register, stoves, or other electronic appliances that produce heat. This equipment is not intended for commercial use.

### **Water and Moisture**

The equipment should not be used near water, e.g., near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool etc. Similarly, do not placed objects filled with liquid, such as vases on top of the equipment.

### **Lighting**

Consonance hi-fi system can be damaged by lightning. Power amplifiers are particularly at risk and therefore should be turned off when there is risk of lightning strike. For complete protection all mains plugs and any aerial cables should be disconnected when not in use.

## **Power Lines**

In case of connecting a tuner, an outdoor antenna should be located away from power lines. If an outside antenna is connected to the system, be sure the antenna is grounded so as to provide some protection against voltage surges and built up of static charges.

## **Cleaning**

Never clean with furniture polish, benzene, or volatile liquids. Dust periodically with a clean, soft paint brush. Fingerprints can be removed with a moist polishing cloth.

## **Introduction**

Thank you for the purchase of the LinearX high-end tube headphone amplifiers. Opera Audio welcomes you to the growing number of discerning audiophiles who own Opera Audio products. This manual has been prepared to help you to maximize your enjoyment of the performance and features of your new Consonance equipment. Please study this manual carefully and become acquainted with all the features, operation and capabilities of your new Consonance equipment. Should you have any questions, or desire information on other Opera Audio products, please contact your local Opera dealer.

## **Unpacking & Set-up**

### **Unpacking**

Before any Opera Audio product leaves the factory it is carefully inspected for physical imperfections as a routine part of Opera Audio's stringent systematic quality control. After you have unpacked the equipment, carefully inspect for any physical damage. Save the shipping carton and packing materials as they are essential for future use to reduce the possibility of transportation damage.

### **Set-up**

#### **1. Check Equipment Voltage**

Ensure that the operating voltage of the amplifier, check the shipping carton label and/or owner's manual, conforms to the delivery voltage of your local power supply (i.e. 240V /230V / 220V/ 115V/ 100V AC dependent on country).

## **2. Positioning the Equipment**

The amplifier may generate considerable heat during normal operation. Please ensure that the unit is far away from effect of any domestic heat source and adequate air circulation around the unit is provided to maintain cool operation. For air circulation, leave enough space around the unit (at least 3 cm on the top and 3 cm on the sides and leave enough space on the back for the power cord and interconnect cables). If the equipment is going to be mounted in an enclosed cabinet, it is recommended that the rear of the cabinet has vents to allow air to circulate around the unit. With these considerations implemented, the equipment should then provide exceptional performance as intended. However, the usual protection of equipment from excessive dust and moisture should always be observed. All the equipment made by Opera Audio has been carefully designed with high quality components so that Long-term undiminished performance is operated in accordance with the instructions provided.

## **3. Install Vacuum Tubes**

Locate the 300B vacuum tubes and insert them into their sockets according to the print on top lid. Pay attention on the proper tube orientation please and be sure to hold the tube by its base when inserting and removing. This will minimize the chance of breaking the glue between the socket and the glass.

## **4. Connect Signal Cables**

Connect the input source to the amplifier's right and left channel jacks. Refer to rear chassis drawing for connection location. These jacks are labeled with colored washers: red for right and black for left.

## **Operating Tips**

### **A. Power cord, plugs and sockets**

The power cord should be routed so that it is not likely to be stepped on or pinched by items placed upon or against it. All the plugs and sockets supplied with your Consonance equipment have been chosen because they mark the best possible connection for their purpose. A poor contact will degrade the signal substantially, plugs and sockets should look clean and free from corrosion. The easiest way to clean them is to switch off the equipment, pull the plugs out of their sockets, and push them back in again. Special contact cleaners and contact enhancers should not be used as they tend to deposit a film, which is very difficult to remove and may degrade the sound.

## **B. Switching on and off**

Source components and power supplies for CD players, tuners, preamplifiers and crossovers should be switched on before switching on the amplifier(s). Always switch the amplifier(s) off and wait about 5 minute for its power supply capacitors to discharge before connecting or disconnecting any leads. Always use the power switch on the equipment instead of the mains outlet switch.

## **C. Running in**

Your Consonance equipment will take a considerable time to run-in before it performs at its best. The duration varies, but under some conditions you will find that the sound continues to improve for as much as five weeks. Better and more consistent performance will be achieved if the system is left switched on for long periods. However, please take note that all electronic equipment can be damaged by lightning and should not be left on for long periods unattended.

## **D. Power supply**

Where fused plugs are used various amp fuses should be fitted. Fuses of a lower rating will fail after a period of use. A hi-fi system usually shares a main circuit with other household equipment some of which can cause distortion of the mains waveform. In some Consonance equipments such distortion can lead to a mechanical hum from the transformers. The hum is not transmitted through the speakers and has no effect on the performance of the system but is purely local to the transformer. A separate fused mains circuit (like that reserved for electric cookers) will have lower impedence, supply cleaner power, and consequently improve system performance. Do not wire voltage dependent resistors or noise suppressors into mains plugs. They degrade the mains supply and the sound.

## **E. Positioning**

Power supplies and amplifiers should be located at a reasonable distance away from other equipments in the system. Adequate spacing will prevent the generation of transformer resonance which in turns causing audible hum to be heard from the loudspeakers. The minimum recommended distance is 300mm (12 inches), and that allowed by the standard interconnect lead being maximum.

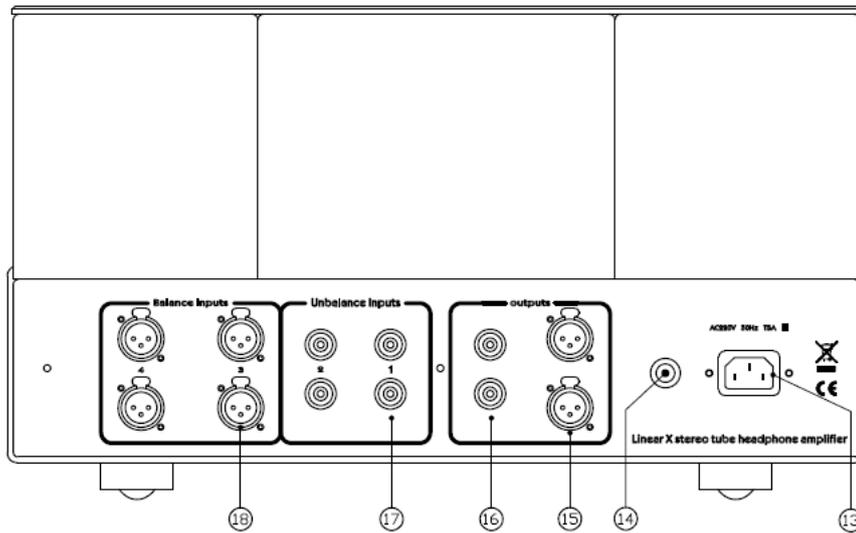
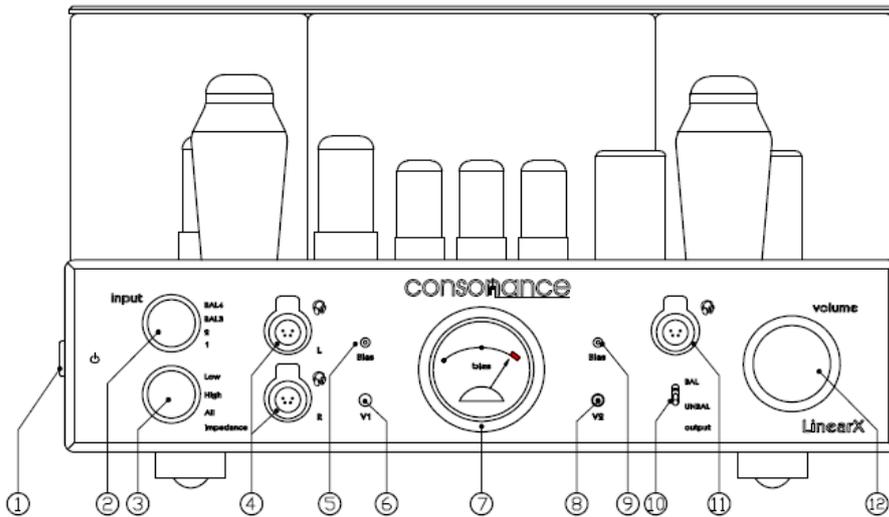
Many of the Consonance equipments, due to stringent requirements for ultimate sonic reproduction, are extremely heavy in weight. If you are placing the equipments on equipment rack or table please ensure that the frame is structural sound for supporting the total weight of the equipments.

## **General Warnings**

Every piece of Consonance equipment is designed to produce the finest sound quality that can be achieved, by avoiding compromise wherever possible. This can lead to circumstances that may be unfamiliar to the equipment owner. The material that follows contains advice specifically related to Consonance equipment as well as more general warning about the use of domestic audio products.

### ***Please read it carefully:***

The transformers in Consonance amplifiers and power supplies may sometimes make a mechanical noise caused by distortion of the mains waveform. Consonance transformers are large in size and have heavy gauge secondary windings making them relatively sensitive to such distortion. A separate mains circuit for your hi-fi system may reduce the effect while also giving an overall improvement in sound quality. It may be necessary however to take account of mechanical transformer noise when placing your equipment. In some circumstances, depending on where you live and the grounding arrangements in your home, you may experience radio frequency interference. Controls on broadcasting in some territories allow very high levels of radio frequency radiation and both the choice and exact placement of equipment may be critical. If there is a known problem in your locality it is advisable to arrange for a home demonstration before purchase to ensure that your selected Consonance equipment can be operated normally. Susceptibility to radio frequency interference is related to the wide internal bandwidth necessary for high sound quality. Systems incorporating moving coil phono preamplifiers and active crossovers are more likely to suffer.



1. Power switch
2. Input select
3. Impedance select  
Low is 30~300ohm, High is 300~600ohm, All is 30~600ohm
4. Dual 3-pin XLR (left and right channel) outputs include 2x6.5mm stereo jacks
5. Left power tube bias testing switch
6. Left power tube bias Adjustment
7. Bias indicator meter of power tubes  
Normal operating point has been factory set at 60mA, the middle point of the indicator.

8. Right power tube bias Adjustment
9. Right power tube bias testing switch
10. Balance and unbalance select switch for headphone outputs
11. 4-pin stereo XLR outputs
12. Volume control
13. AC Power connection 230V /115V /100V AC dependent on country
14. Fuse
15. Pre output balance jack
16. Pre output unbalance jack
17. Unbalance inputs jacks
18. Balance inputs jacks

## **Technical Specification**

Output impedance: 30~300ohm, 300~600ohm

Output power: 9W x2 RMS 1kHz

Frequency: 6Hz-55kHz -3dB(1W)

Distortion: <1% (5W, 1KHz)

Signal noise: 85dB

Input interfaces: 2 groups (RCA), 2 groups (XLR)

Preoutput interfaces: 1 group (RCA), 1group (XLR)

Headphone outputs: Dual 3-pin XLR (left and right channel), 4-pin stereo XLR, 6.5mm jack

Input Impedance: 100K

Consumption: 160W

Vacuum Tube: 300Bx2, 5U4Gx1, 6SL7x3, 6AS7x1

Dimension: 430(L) x 385(W) x246(H) mm

Weight: 26kg

## Warranty

Opera audio guarantees each product manufactured by us to be free from defects in materials and workmanship under normal use. Our obligation under this warranty is limited to making good at our factory any part or parts thereof which shall, within 1 year after delivery to the original purchaser, be returned to us with transportation charges prepaid, and which an examination shall disclose to have been thus defective; this warranty being expressly in lieu of all other warranties expressed or implied and of all other obligations or liabilities on our part. This warranty shall not apply to any Opera audio product which shall have been repaired or altered outside of our factory in any way so as to affect its stability, nor which has been subject to misuse, negligence or accident. Warranties of the vacuum tubes are by the respective manufacturers, usually 90 days.

**Please mail or e-mail the Registration Card to the address as follows:**

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Chaoyang District, Beijing, China

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Fax: 86 10 59789265

**support@opera-consonance.com**

**www.opera-consonance.com**



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