



# Leto Ultra Vacuum Tube Preamplifier Owner's Manual

Please read carefully before  
installing and operating this equipment



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**Made in the USA**  
**Using US and Imported Parts**

Dear Music Lover,

I wanted to personally thank you for your purchase of my Leto Ultra Preamp.

I have loved music all my life – as a musician, record producer and audio engineer. That makes me fussy about sound. That’s a good thing.

Each unit is built by hand with precision and pride to produce the most enjoyable listening experience for you.

I am proud to put my name on it and honored to share this with you.

Wishing you many happy years of happy listening!

Sincerely,

-- George Counnas, President of Zesto Audio

FYI:

**Zesto** is Greek for hot

**Leto** is the mother of Apollo

**Ultra** is Latin for “Beyond the Ordinary”

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## What's in the box

- Leto Ultra Preamplifier
- Leto Remote Control
- 2 12AX7/ JJ ECC83s Vacuum Tubes
- 2 12DW7/ JJ ECC832 Vacuum Tubes
- White glove for handling tubes
- IEC power cable 6'

\*\*\*Not Included: Interconnect cables

# Warning and Caution

**WARNING:** The triangle with the lightning flash symbol displayed on the unit advises the user of dangerous uninsulated voltage inside the product's enclosure.

**CAUTION:** To reduce the risk of electric shock, do not remove the cover. There are no user-serviceable parts inside; it is recommended that only qualified personnel service this component.

1. **OWNER'S MANUAL:** Before powering up the equipment, read all safety and operating instructions and follow them as instructed. Retain the safety and operating instructions for future reference.
2. **ATTACHMENTS:** Use only those attachments recommended by the unit manufacturer, as others may cause hazards.
3. **ACCESSORIES:** Do not place the unit on an unstable cart, stand, tripod, bracket, or table. The unit may fall, causing injury to a person or damage to the unit. Mount the unit according to the manufacturer's instructions with the suggested mounting accessory.
4. **WALL OR CEILING MOUNTING:** Do not mount the unit on a wall or ceiling.
5. **WATER AND MOISTURE:** Do not use the unit near water (for example, near a swimming pool, bath tub, wash bowl, kitchen sink, or laundry tub) or in a damp environment (like a basement or outside in the rain).
6. **OBJECT AND LIQUID ENTRY:** Do not push objects of any kind into the unit through openings as they could touch dangerous voltage points and short-out parts, possibly resulting in a fire or electric shock. Do not spill liquid of any kind on the unit. If water or any metal object (such as a paper clip, coin, or staple) accidentally falls inside the unit, disconnect it from the AC power source immediately and contact Zesto Audio for further instructions.
7. **HEAT:** Position the unit away from heat sources such as radiators, heat registers, stoves, or other units (including amplifiers) that produce heat.
8. **VENTILATION:** Slots and openings in the enclosure create ventilation to protect the component from overheating. All of these openings must remain unobstructed. Allow at

least six inches of clearance above the unit, 0.5 inch below and an opening behind the unit for airflow. Do not place the unit on a bed, sofa, rug, built-in bookcase, or rack without adequate ventilation.

9. **GROUNDING OR POLARIZATION:** As a safety feature, the unit may be equipped with a polarized alternating current line plug in which one blade is wider than the other and has an additional grounding blade. This plug will fit into the power outlet only one way. If you cannot insert the plug fully into the outlet, try reversing the plug. If the plug still will not fit, contact a licensed electrician to update your outlet. Do not defeat the safety purpose of the polarized plug.
10. **POWER SOURCES:** Operate the unit only from the power source indicated on the marking label on the back of the unit. If you are unsure of the type of power supplied to your home, consult your unit dealer or local power company.
11. **POWER CORD PROTECTION:** Arrange power supply cords so that they do not suffer from foot traffic or pinching by items placed on or against them. Pay close attention to cords where plugs enter the AC outlet and where they exit from the unit.
12. **LIGHTNING:** For added protection during a lightning storm or when the component is idle for long periods of time, unplug the unit from the wall outlet. This will help protect the unit from lightning and power line surge damage.
13. **POWER LINES:** Do not locate an outside antenna system in the vicinity of overhead power lines or other electric light or power circuits. When installing an outside antenna system, take extreme care to avoid touching the power lines or circuits; contact with them could be fatal.
14. **OVERLOADING:** Do not overload wall outlets, extension cords, or integral convenience receptacles as this increases the risk of fire or electric shock.
15. **REPLACEMENT PARTS:** When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or those having the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock or other hazards.
16. **SAFETY CHECK:** Upon completion of any service or repairs to the unit, ask the service technician to perform safety checks to ensure the unit is in proper operating condition.

## 17. IMPORTANT SAFETY NOTE:

- Before connecting a new product such as the Andros T  ssera Phonostage to your audio or home theater system, turn off all other equipment (preferably unplugging them from the AC power source). Many audio components feature automatic turn-on circuits that may activate during an installation, potentially causing damage to electronic components or speakers. This type of damage is not covered by product warranties, and Zesto Audio specifically disclaims responsibility for any such damage.
- **Power Cord:** The removable IEC power cord provided with your unit was specifically designed for use with this product, but other AC cords may be used. Consult your dealer for advice on AC power cords and high quality wire in your system.
- **AC Fuse:** The fuse is located inside the IEC power entry connector. If the unit does not power up, contact an authorized service representative.
- **Wiring:** Cables running inside walls should have the appropriate markings to indicate compliance and listing by the UL, CSA or other standards required by the UL, CSA, NEC, or your local building code. Questions about cables inside of walls should be directed to a qualified custom installer, licensed electrician, or low-voltage contractor.

18. **RECORDING COPYRIGHT:** Recording of copyrighted material for other than personal use is illegal without permission of the copyright holder.

## 19. FCC INFORMATION FOR USER:

- **CAUTION:** Any changes or modifications not expressly approved by Zesto Audio could void the user's authority to operate the equipment.
- These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates and can radiate radio frequency energy, and if not installed and used in accordance with the instructions it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
  - Reorient or relocate the equipment.
  - Increase the separation between the equipment and receiver.
  - Connect the equipment into an outlet on a circuit different from where the receiver is connected.

# Specifications

## Inputs

- 6 Inputs with remote or manual controls
- 3 sets of true transformer Balanced inputs (pin 2 hot) with an impedance of 10K Ohms
- 3 sets of Single Ended inputs with an impedance of 100K Ohms
- Maximum input level of 7 Volts RMS

## Outputs

- 4 Line outputs
- 2 sets of true transformer Balanced outputs (pin 2 hot) with an impedance 150 Ohms
- 2 sets of Single Ended outputs with an impedance 150 Ohms
- Maximum peak output level of 10 Volts RMS
- 2 Independent ground lift switches on the left and right outputs

## Presence

- 6 position remote or manual Presence control
- Presence 0,-1, -2, -3, -4, -5 (low pass shelf)
- 0 = Presence feature is not engaged  
(completely disconnected from the circuit like a normal preamp)
- -1 = 13Khz and above
- -2 = 8Khz and above
- -3 = 4Khz and above
- -4 = 2Khz and above
- -5 = 1KHz and above
- Presence control defaults to "0" when changing inputs
- Presence control defaults to "0" when you turn the unit on

## Gain

- 3 remote controlled Gain settings of 9dB, 6dB and 3dB
- Manual Gain push button on rear panel
- Gain setting is saved on each input

## Vacuum Tubes

- Two (2) Gold pin JJ ECC82/12AU7
- Two (2) Gold pin JJ ECC832/12DW7
- High quality gold pin ceramic sockets

## Detailed Specifications

- Remote control Input, Volume, Mute, Mono, Presence and Gain settings
- All adjustments can be operated manually (just in case the remote is misplaced)
- Frequency response 10Hz to 40Khz ~ 2dB
- Distortion ~ 0.013% with 1V RMS input
- Signal to noise ~ 100dB below operating level
- Non inverting output polarity
- Cross talk >90dB
- 1% metal film resistors throughout
- Polypropylene capacitors throughout the audio path

## Power

- Power consumption 28W, 0 drain when off
- Voltage 110/120V AC 60Hz
- Optional factory installed 220V or 230/240V AC 50/60Hz
- Standard 3 pin 15 Amp IEC power connector
- ON/OFF power switch conveniently located on the side panel
- Two internal high quality linear regulated power supplies, 250V and 12V

## Other Features

- Each unit is hand made in the USA
- 50 hour factory burn in on all circuits and vacuum tubes
- Dimensions 17"w X 12"d X 5"h
- Weight 28 lbs.
- Shipping weight 30 lbs.(12.70 kg)
- Shipping box: 21"w x 21"d x 11"h (53.34cm x 53.34cm x 27.94cm)
- 16 gauge zinc plated steel enclosure
- Two year limited warranty
- Six months warranty on Vacuum Tubes
- Recessed RCA and XLR connectors are Gold plated with an isolated ground.
- All switches and knobs are easily accessible, nothing hidden inside to adjust.



# Rear Panel Inputs and Controls



- Power ON/OFF switch: Turns the unit ON/OFF (located on side panel).
- Inputs 1, 2 & 3: RCA single ended (SE) High quality recessed gold pin connectors
- Inputs 4, 5 & 6: XLR True floating balanced transformer inputs. (BAL)
- Outputs 4 sets: Two sets of RCA SE & 2 sets of XLR transformer balanced outputs
- Left and right Ground ON/OFF switch: Connects or disconnects the ground to the Single Ended outputs
- Gain push button switch: Just in case your remote is misplaced.
- IEC Power entry connector: 110/120V AC power input. (optional factory installed 220V or 230V/240V mains)
- Fuse Holder drawer in IEC mains: 120V 0.5 Amp slow blow fuse,
- 220V, 230V/240V 0.25 Amp slow blow

## Front Controls and LED's



### Left Knob is the Volume Control

- The volume goes from 0 to 10 and is indicated by the black dot on the front of the knob.
- There are no LED indicators.
- Volume is adjusted manually by turning the knob or with the remote control.
- Adjust the Gain so your normal operating volume is around 12 o'clock.

### Center Knob is the Presence Control & Mono

- The "0" position is the Leto Ultra Preamp without any Presence features engaged.
- In "0" position Presence is not connected in the circuit.
- Center knob defaults to "0" when it's turned on
- Center knob defaults to "0" when you change inputs.
- Presence can be adjusted manually by turning knob or with the remote control.
- **Mono** is adjusted by Pushing-in this knob, do not turn to adjust.
- The "Mono" function indicated by the LED.
- Mono combines the left and right inputs.
- The best use of the Mono feature is in setting up your system to establish a good center image and trouble-shooting for phase problems.
- Mono can be used for old Mono cartridges that have only one output.

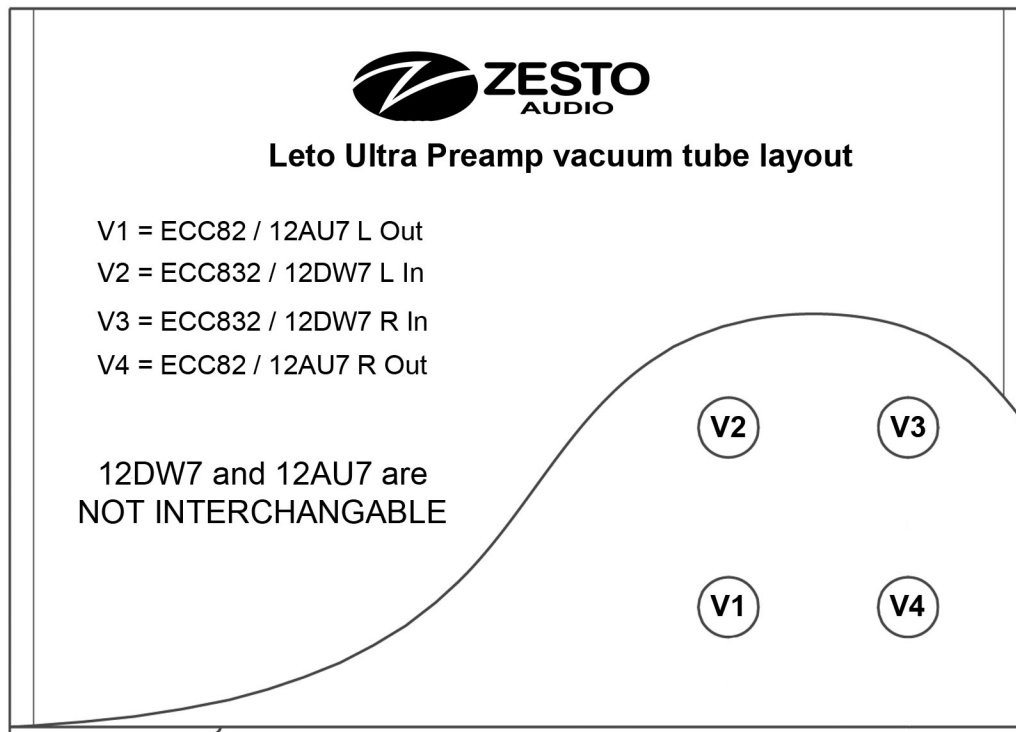
### Right Knob is the Inputs Control & Mute

- You have 6 inputs. 1 to 3 are Single Ended and 4 to 6 are Balanced.
- Inputs are adjusted manually by turning knob or with the remote control.
- Inputs can be adjusted on the "fly" with a slight delay and small mechanical click from the relays.
- While switching inputs the unit will go to Mute momentarily

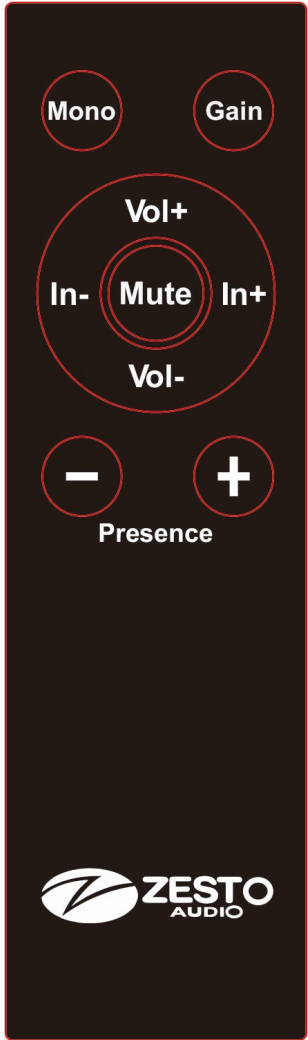
- **Inputs and Gain** settings are linked and will remember your last Gain settings for each input that has been set for more than 30 seconds. This is a useful feature when you have as an example a high output DAC and low output phono.
- **Mute:** The Unit will default to Mute when first turned on indicated by a yellow LED.
- Adjusted with remote.
- Push in this knob to adjust the “Mute” function. Don’t turn the knob to manually adjust **Mute**, that will change your inputs.

## Gain

- LED’s will cycle through the three gain positions 3 dB, 6 dB and 9 dB.
- Adjust with the remote on the “fly”.
- The Manual Gain adjustment is a push button found on the rear panel next to the IEC mains connector.
- Adjust the Gain so your normal operating volume is around 12 o’clock.
- **Inputs and Gain** settings are linked and will remember your last Gain settings for each input that has been set for more than 30 seconds. This is a useful feature when you have as an example a high output DAC and low output phono.



# Remote

	<p><b>Remote has 9 buttons with 6 functions:</b> Volume, Input, Gain, Presence, Mute, &amp; Mono.</p> <p><b>Mono:</b> The Mono LED is located on the front panel, by the presence control knob. The function is on when the Yellow LED is illuminated. This function adds Left plus Right inputs. Press the Mono button for ON/OFF.</p> <p><b>Gain:</b> Will sequence with 3dB then 6dB and 9dB every time you press the Gain. The unit will remember the last gain setting for any particular input.</p> <p><b>Volume:</b> Is adjustable on the remote with the Vol+ or Vol- buttons.</p> <p><b>Inputs:</b> Will sequence using the In+ or In- button on the remote.</p> <p><b>Mute:</b> Preamp defaults to <b>Mute</b> every time it is first turned on and momentarily when you change inputs. Mute yellow LED is located on the front panel with the input knob. Press the Mute button for ON/OFF.</p> <p><b>Presence:</b> Will sequence using the Presence - and the Presence + buttons and will always defaults to “0” when first turning on or changing inputs</p>
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## Manual Adjustments

- **Mono** is adjusted by Pushing-in this knob, do not turn to adjust.
- **Gain** manual adjustment is a push button found on the rear panel next to the IEC mains connector.
- **Volume** is manually adjusted by turning knob.
- **Inputs** are adjusted manually by turning knob.
- **Mute** is adjusted by Pushing in the knob. Don't turn the knob to manually adjust Mute, that will change your inputs.
- **Presence** is manually adjusted by turning knob.

# Hookup, Settings and Adjustments

## Before you start you will need:

- RCA or XLR Interconnect cables from your sources and to your power amp.

## Proper Care of the Leto Ultra Preamp

### Very Important Read This First

- The simple rule to remember is to “turn on the preamp before turning on your power amp and turn off the power amp before turning off the preamp.”  
**Note:** Turn on your power amps after the Preamp LED's have turned on. Not doing so may create a very loud noise that could damage your speakers or other equipment.
- It is customary for vacuum tube equipment, when it is first turned on, while the unit is powering up, to have a brief initial “hum” coming from the unit, not from the speakers.

### Warm up

- Allow at least 10 to 30 minutes for tubes to warm up to get the best performance from the preamp.

### Power

- Carefully plug in the AC power cable to the preamp first then to your main power.

### Turn it on

- Turn on the preamp using the ON/OFF switch located on the front left side. After a few seconds the LED's will illuminate and approximately 1 minute for the four tubes should start glowing. The amber glow of the tubes as well as 4 LED's (mute, input, gain & presence) on the front panel will be the visible indication that the unit is turned on.
- Turn on your power amps after the Preamp LED's have turned on.
- If the LED's don't turn on, then turn off the unit at the power switch and unplug the power cord. After waiting a few minutes unplug each vacuum tube in turn (using the glove provided) and make sure that none of the pins are bent. If they are please contact Zesto Audio for instructions.

## **Burn-in**

- Like all high end audio equipment, this Vacuum Tube Preamp can take **200 hours to break in**. For circuit testing and quality assurance, Zesto Audio ships all the Leto Ultra Preamps with at least **50 hours of factory burn-in**.

## **Vacuum Tubes**

- **Important!** First identify the two types of tubes as they are **NOT INTERCHANGEABLE**. Your input tubes are ECC832 (12DW7) and your output tubes are ECC82 (12AU7). They are not interchangeable. Please note that failure to follow this warning can cause considerable damage not covered under warranty. Plus it will sound terrible and wear out the tubes prematurely.
- The sockets are labeled in order to correctly plug in the right tube in the right socket. Using the glove provided, unpack and carefully plug in, **do not** rock the tubes that can bend the pins. Make sure they are firmly pushed in all the way in their sockets. They can only go in one way.

## **Output**

- Using RCA or XLR interconnect cables; connect both the left and right outputs to your power amp.

## **Input**

- Using RCA or XLR interconnect cables; connect your sound sources to the inputs of the preamp. 1 thru 3 are Single Ended and inputs 4 thru 6 are Balanced.

## **Feet**

- Your unit is installed with four feet using 8-32 screws.

## **Fuse**

- This preamp is design only for “Slow Blow” fuses. Do not use a standard fuse.

# Tips and Tricks

## How to use the Presence control

- The Presence feature adjusts the harmonic balance in the mid and high frequencies in 5 positions, allowing you to dial back what might be considered too bright, edgy or aggressive. This is an exceptionally useful tool that addresses the inconsistencies in mastering from any digital or analog source. As you progressively dial back the Presence from –1 to –5 there will also be a slight decrease in volume. You may want to readjust the volume to the former level. By engaging the Presence and increasing the volume, you are effectively increasing the bass.
- Always start in the “0” position. Then adjust from there. Not all music needs it. Presence can be easily adjusted for every song.
- This can be done on the “fly” with no clicks or pops
- This is not your father’s tone control which radically changes the balance of all the instruments. It does not boost or cut the bass, or boost the treble, but gently reduces the treble in the range that can become unpleasant. The intent of the Presence control is to keep the essence of the music in a more relaxed and less fatiguing way.
- Presence is designed to gently reduce unwanted mid and high frequencies in 5 steps. “0” being not connected in the circuit. Each step changes the frequency that it starts working with –1 the highest and –5 the lowest. The amount of reduction is fixed and does not severely cut the upper frequencies, rather reduces them. I recommend starting in the “0” position and reducing the highs as needed for any particular source or music.

## Ground

- Ground switches apply to outputs only.
- If you have RCA SE outputs start with both ground switches up.
- If you have XLR outputs start with both ground switches down.
- The ground switches work independently. You can adjust them for the least amount of noise.
- Example; Right channel up, left channel down
- Right channel down, left channel up
- Right channel up, left channel up
- Right channel down, left channel down

## Volume Control / Gain Adjustment

- The unit is designed to work ideally with the volume control between 10 and 2 o'clock position for normal operating volumes. If the volume control is at 4 o'clock or 8 o'clock you may want to set the gain to a different setting.
- Turning the volume control to "0" under certain circumstances may not necessary turn the volume all the way off.
- Press the Mute button to turn the volume off.

## Tube Rolling

- **Important! The wrong type and placement of the tubes can cause considerable damage.** First identify the two types of tubes, as input and output tubes are **NOT INTERCHANGEABLE**. You may use any ECC832 (12DW7) or equivalent only for the input tubes and any ECC82 (12AU7) or equivalent only for the output tubes.
- Any damage caused by tube rolling is **NOT** covered by the manufacturer's warranty.

## Mono for System Set Up

I recommend using the Mono function primarily to help you setup and troubleshoot your system.

- When the "Mono" function is engaged you should get a solid center image.
- If you get an extreme Left and extreme Right image then something is likely out of phase. The most common cause is one of the speaker cables has been reversed.
- If you get something in between or one speaker is louder than the other, you may want to adjust your speaker placement.
- If it's not the speakers, at least it gives you a tool to troubleshoot the other cables or component in your system.
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## Trouble Shooting

Just in case the unit is not responsive to the remote or manual adjustments, the unit needs to be rebooted. First turn of your power amp, second turn off the Leto, wait 30 seconds and turn the Leto, then turn on the amps.



# Warranty

All Zesto Audio equipment is covered by a 2 year limited warranty for parts and labor to cover defects in materials and workmanship and 6 month warranty on the original vacuum tubes from date of purchase.

To obtain this original owner warranty the completed warranty registration card should be emailed to the factory within 15 days from date of purchase. The warranty is not transferable.

This warranty is void if the product has not been used in accordance with the instructions found in this owner's manual, or if it has been misused, abused, damaged by accident or neglect, or in transport once in possession of purchaser. The warranty is also void if the product has been tampered with or has been repaired or modified by anyone other than Zesto Audio or its specifically authorized representatives. This limited warranty only applies to Zesto Audio equipment and carries no responsibility for any other equipment attached to this unit.

Zesto Audio will not warranty any damage caused by "tube rolling". The warranty only covers the use of 12DW7's and 12AU7's in their proper positions.

To return the product it must be packed in its original packaging and returned to Zesto Audio or its authorized representative via insured freight at the owner's expense. Returned products must be accompanied by written description of the defect and a return authorization number that is available from Zesto Audio or the authorized representative. Upon receipt of the defective product Zesto Audio or the authorized representative agrees to repair the product without charge for parts and or labor if within the 2 year warranty period, except for vacuum tubes if the unit is more than 6 months old. The product will then be returned via prepaid insured freight with a carrier at the sole determination of Zesto Audio or the authorized representative.

Zesto Audio and its partners reserve the right to modify their products or change specifications at any time without obligation or liability to previous purchasers.

Warranty will cover ownership outside the USA, but shipping is the sole responsibility of the owner. See your local dealer for factory approved service in your area.

Factory service on non-warranty items will be billed at an hourly rate to be quoted before work is done.