



EROS 500 Select Class A Monaural Power Amplifier Owner's Manual

Please read carefully before installing and operating this equipment



Zesto Audio

3138 Calle Estepa, Thousand Oaks, California 91360
805-807-1840 www.zestoaudio.com george@zestoaudio.com

Made in the USA Using US and Imported Parts

Dear Music Lover,

I wanted to personally thank you for your purchase of my EROS 500 Monaural Power Amp.

I have loved music all my life – as a musician, record producer, and audio engineer. That makes me fuss about the 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 listening!

Sincerely,

-- George Counnas, President of Zesto Audio

FYI:

Zesto is Greek for hot.

EROS is the God of Love and Desire in Greek mythology.



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What's in the box:

Eros 500 Select Monoblock Power Amp
6 KT150 Vacuum Tubes
2 ECC82 (12AU7) Vacuum Tubes
White glove for handling tubes
IEC power cable 6'

What's not Included:

KT88, KT120, or KT170 vacuum tubes
Interconnect or speaker 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, bathtub, 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 12 inches of clearance above the unit, 1 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 are pinched 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 extended 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 Eros 500 Select 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 and is user-replaceable. Only replace the fuse with the exact same type that was removed. Only use a slow blow fuse. If the unit does not power up, contact an authorized service representative.
- **Important:** Any use of aftermarket performance fuses in the IEC mains will **VOID** the warranty.
- **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 walls should be directed to a qualified custom installer, licensed electrician, or low-voltage contractor.

18. **RECORDING COPYRIGHT:** Recording 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 to an outlet on a circuit different from where the receiver is connected.

Front & Rear Panel Inputs, Outputs and Controls



Front panel (not shown)

- **Power on/off switch:**
Turns the unit ON/OFF (located on the front panel).
- **Front panel LED lights:**
Green indicates high voltage; Amber indicates low voltage (Both lights will remain on when the unit is in use)

Rear panel

- **15 Amp IEC Power entry connector:**
120V AC power with 8 Amp 5mm x 20mm slow blow fuse.
Optional factory installed 220V, 230V/240V 50/60Hz mains, 5 Amp slow blow.
The fuse is located in the drawer compartment in the IEC mains connector.
- **Inputs:**
RCA Single High-quality recessed gold pin connectors
XLR True floating ground, differential balanced transformer inputs.
- **SpeakOn** Subwoofer connection (Rel Acoustics compatible)
- **Ground on/off switch:**
Connects or disconnects the ground on XLR inputs.
- **Outputs:**
5-way binding posts with 4 Ohm and 8 Ohm taps with black common
- **Output speaker fuses:**
Individual 10Amp and 7Amp 6mm x 32mm slow blow fuses for each output tap.

Specifications per amp (based on KT150 tubes)

Output

- Pure Class A, Push-Pull Ultra Linear design
- 250 Watts per amp
- 4 Ohm and 8 Ohm non-differential output taps
- Three 5-way binding posts
- 8 Amp and 5 Amp Slow-blow speaker fuses (6mm x 32mm)
- Non-inverting output polarity
- SpeakOn connector for a subwoofer (Rel Acoustics compatible)
- Specs for SpeakOn subwoofer cable: Pins +1 and +2 go to the 8 Ohm output and pin -1 goes to the ground.

Power rating for Auto Bias Select Switch Settings

Left Position:

- KT88 = 150 Watts per channel
- KT120 = 150 Watts per channel
- KT150 = 150 Watts per channel
- KT170 = 150 Watts per channel

Middle switch position:

- KT150 = 200 Watts per channel
- KT170 = 200 Watts per channel

Right switch position:

- KT150 = 250 Watts per channel
- KT170 = 250 Watts per channel

Inputs

- Transformer true balanced differential input
- XLR gold pin balanced input with pin 2 hot, impedance 12K Ohms
- RCA gold pin single-ended input, impedance of 12K Ohms
- XLR ground lift switch
- 2 Volts RMS input to reach rated output.

Detailed Specs

- Monaural
- Auto bias
- No negative feedback
- Frequency response 20Hz to 30Khz ~ 3dB
- Total Harmonic Distortion ~ 0.07% at 1W into 8 Ohms
- Gain of 27dB
- Noise level > 4 mV RMS into 8 Ohms with input shorted
- 1% metal film resistors throughout
- Polypropylene capacitors throughout the signal path

Power

- Large custom Toroidal power transformer
- 120 Volts AC mains with 8 Amp 5mm x 20mm slow blow fuse
- The mains fuse is located in the drawer compartment of the IEC power connector.
- 3 pin 15 Amp IEC power inlet connector
- Optional factory installed 220V, 230V/240V 50/60Hz with 5 Amp slow blow fuse.
- Power consumption at a rated output of 756 Watts
- On/Off switch conveniently located on the front panel
- Amber LED low voltage and green LED high voltage indicators

Active Components


- Six (6) KT150's vacuum tubes
- Two (2) ECC82 (12AU7) vacuum tubes


Other Features

- Each unit is made by hand.
- 50-hour factory burn-in on all circuits and vacuum tubes
- Dimensions 17" W X 20" D X 10" H (43.1 cm x 25.4 cm x 50.8 cm)
- Weight 79 lbs. (35.8 Kg)
- Shipping weight 96 Lbs. (43.5 Kg)
- Shipping box 27" W X 27" D X 13" H (68.5 cm x 68.5 cm x 33 cm)
- 16- and 14-gauge Zinc plated steel enclosure
- Two-year limited warranty
- Six months warranty on 12AU7 Vacuum Tubes, 90-day warranty on KT150 power tubes

Set up

Placement

 **Warning!** You can damage this amplifier by not providing adequate ventilation on all 6 sides and at least 12” above the unit. It is **not recommended** to install the Eros 500 Select in an enclosed rack or directly on a carpet.

 **Tip!** Placement near other components such as network routers, satellite TV boxes, table, or floor lamps can be a notorious source of hum or clicking noise in your system. It is a good idea to put all your lighting and digital sources on their own power strip.

For best performance, it is **not recommended** to drive the EROS 500 directly from a DAC or to use a passive volume control. The EROS 500 is designed to be driven by a powered preamp.


Cables

Interconnect: Using RCA or XLR interconnect cables; connect your preamp to the inputs of the power amp.

 **Tip!** If you have a choice, **balanced cables are preferred** for sonic reasons.

Speaker cables: The output of this amplifier is non-differential. The common black binding post is grounded. Connect the speaker to the common black binding post and either the 4 or 8 Ohm output red binding posts.

Banana Plugs: If you encounter difficulty inserting the Banana Plug, loosen the small set screw on the side of the binding post, as well as loosen the end of the binding post.

 **Tip!** Take advantage of the multiple taps as your system may respond better to the 4 or 8 Ohm. For example, some systems find there is more bass with the 4 Ohm, and some find it's more open on 8 Ohms.

SpeakOn connector is Rel Acoustics compatible.

Subwoofer cables: Two ways to hookup your Subwoofer:

1. SpeakOn cable connections are more reliable, safer, and sonically optimized for your subwoofer. Ask your dealer for cable recommendations.

SpeakOn cable specs: Pins +1 and +2 internally go to the 8 Ohm output and pin -1 goes to ground.

2. If you do not have SpeakOn cables, the Eros 500 output is non-differential, so you can

hook up your subwoofer between the common and the red 8 Ohm binding post.



Safety Tip! It is **not recommended** to use one subwoofer between 2 Monoblocks. This can cause serious damage to the subwoofer.

Power cable: This unit responds well to high-quality power cables. Always plug in the power cable after you install the tubes.



Safety Tip! With a push-on/off power switch, it is possible for the amp to be on when you plug it in. If this happens turn it off. Once both Amber and Green LEDs are off it is safe to proceed.



Safety Tip! If for any reason the amp is turned on without the tubes installed, you will not damage the amp. If this happens turn it off. Once both Amber and Green LEDs are off it is safe to proceed. Be patient, this could take a while to fully discharge the capacitors.

Power

Green LED is the high-voltage indicator. Amber LED is the low-voltage indicator.



Tip! Power amps need lots of clean power.

For the best results, it is recommended to plug the Eros 500 directly into an AC wall outlet with a proper ground and not through any power conditioner.

For the best performance of your system, if you must use a power conditioner or outlet strip, use a separate strip for the power amp and a separate strip for your other components. It's ok to use the same duplex, but not the same outlet strip.

Keep in mind that each EROS 500 will draw 6.4 Amps, that's almost 13 Amps from your wall outlet. It is **recommended** that you use a 20 Amp outlet, otherwise you risk tripping your breaker.

Power amps will always draw all the power they want first, which can negatively affect any component plugged into the same strip and compromise the sonic performance of your system. Carefully plug in the AC power cable to the power amp first then into the wall outlet.



Warning! It is **not recommended** to use any AC 2 to 3 pin adapter (cheater plug) with this power amp. For your safety Zesto Audio provides a ground switch that floats the ground on the XLR inputs. The ground on the RCA is always floating. If you get a hum, start with the ground switch off, then independently flip the switch on each amplifier for the least amount of noise.



Tip! What Is Your Best Audio Accessory? Hire an electrician to install a 20 Amp dedicated line for your audio system. Do not plug in any lighting on your audio circuit as lighting can be a notorious source of hum.

Tubes

Installing the tubes

- This unit is compatible with KT88, KT120, KT150 and KT170 output tubes and only 12AU7/ECC82 input tubes.
- Output tubes can go in any socket V1 through V6. Input tubes V7 & V8.
- When installing the 12AU7/ECC82 tubes, be careful not to bend the pins or damage the 9-pin sockets. You should not have to use excessive force. Inserting tubes incorrectly is **not covered under the warranty.**



Warning! The circuit design is **not compatible** with 12AX7, 12DW7, or any other 9-pin tube. This will cause damage to the unit.



Warning! The bias settings are **not compatible** with 6550, KT90s, and KT100s tubes. Because of their lower power rating, they cannot manage the higher current and voltage, which will cause damage to both the power amp and the tubes. You could cause what's known as "Red Plating."

- **Important!** The wrong type of tube can cause considerable damage.
- Any damage caused by tube rolling is **not** covered by the manufacturer's warranty.
- Each Eros 500 Select ships with six KT150s and two 12AU7s.
- Only KT150 and 12AU7/ECC82 supplied by Zesto Audio are covered under the warranty. All other tubes are purchased separately and are the responsibility of the owner.



Warning! You cannot mix and match output tubes.

- All six output tubes must be produced by the same manufacturer. For example, all six must be JJ or six Tung-Sol or six Gold Lion etc.
- All six output tubes must be of the same model type. For example, all six are KT88's model, or six KT120's, or six KT150's or six KT170's.



Tip! The logo on the metal collar and the alignment key on the tube faces forward.
Caution! Do not ROCK the tube, install it straight up and down holding the metal collar.

What if you break the “Key” on an output tube?

If you look at the bottom of the tube, there is a black plastic cylinder in the center of the pins with a notch, this is your alignment key. This plastic is fragile and can easily break if you rock the tube. You can fix it with a 5-minute 2-part epoxy glue.

- If you break a key, you must be very careful to install the tube in the correct orientation or you will damage the amplifier. (See warning below)
- If you break the key in the socket, just push it through and it will fall to the bottom of the amp. Don't worry! It won't short out anything, but it will rattle when you move the amp.
- Broken keys do not affect the performance of the amp.
- Broken keys are **not covered** under warranty.



Warning! You can blow up a power amp with considerable drama by inserting an output power tube incorrectly.

- This happens when you break the plastic alignment key and do not insert the pins with the proper orientation into the socket.
- Notice there are 8 pins in the socket, but only 7 pins in the tube with pin 6 missing, so it's easy to get it wrong. Intuitively you think the open pin matches the key, but it doesn't. The key orientates at 6 o'clock, but the missing pin 6 orientates at 10 o'clock. **Tip:** The logo on the metal collar and the alignment key on the tube faces forward. There is usually a notch in the metal tube collar that lines up with the key.
- For your safety, all Zesto Audio power amps ship with a copper plug inserted in the pin 6 socket to avoid any accidents. The good news is your power amp can be repaired at the factory or authorized service technician if inserted incorrectly. The bad news is any repairs caused by tubes installed incorrectly are **not covered under warranty**.

Changing Tubes

- Turn the power OFF, then wait for both the Amber and Green LEDs to go OFF.
- For the best performance, this amp needs to warm up for 30 minutes.
- If your amp is already warmed up, you only need 15 minutes for the new output tubes to warm up.
- Tubes are fragile when hot, so handle them carefully with a cotton towel and place them to cool down on a cotton towel, not a hard surface and not your carpet.



Warning! Hot tubes will melt Microfiber cloths, most synthetic fabrics, and your carpet.

See Trouble Shooting on page 17 for more tube info.



About the Bias Select Switch

- The Bias Select switch changes the power of the amplifier.
- The bias switch settings are clearly labeled for the specific output tubes and are **not interchangeable**.
- **Left Position:** Rated at 150 Watts is the maximum output for a KT88 and KT120. Caution! Any other position will exceed its maximum power rating and will damage the tube known as “Red Plating” and possibly damage the amplifier.
- **Center Position:** Rated at 200 Watts is an optional power rating for KT150 & KT170.
- **Right Position:** Rated at 250 Watts is the maximum power rating for KT150 & KT170.
- Only the KT150 and 12AU7/ECC82 supplied by Zesto Audio are covered under the manufacturer’s warranty. 90 days on the KT150s and 6 months on the 12AU7s. All other tubes are purchased separately and are the responsibility of the owner.

How to use the Bias Select switch

- This switch gives you the option to customize your system.
- Each setting not only changes the power but also changes the sound.
- This feature is designed to be easy to use. You can change the bias on the “FLY” while the unit is on, so you can hear the difference.
- It will take a few minutes for the tubes to react, to either heat up or cool down to hear the difference.
-

Tip!

- KT150 and KT170 can be changed to all 3 positions, however, you can damage a KT88 and KT120 in a few seconds if you overload them on the wrong bias setting.
- You may find a more musical option for your system than the maximum power setting and may prefer the sound on a lower bias setting.
- KT150’s set in the right bias position at maximum power, will be a livelier and more powerful presentation. However, because of the higher power demand the KT150 will wear out sooner.

- KT150s in the center bias position will tend to have a more open sound, which may be more suited to your system and musical preferences. We like it in the center position.
- Your KT150 tubes will last longer in the center position.
- The choice is yours. You are encouraged to experiment.

Operating the EROS 500 Select



Tip! The simple rule to remember is to “**turn on** your preamp first before **turning on** your power amp and **turn off** the power amp before **turning off** the preamp.” Not doing so may create a loud noise that could damage your speakers or other equipment.



Tip! When the amp is cold, it will require the most energy to turn on. Don't turn on both amps simultaneously, so it's not a strain on your electrical system. It's a good idea to only turn on one unit, wait a few seconds, and turn on the other unit.

- 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.
- It is very important that all your audio equipment is **turned off** or unplugged from the main power before attempting to install this unit.



Important Warning! Tube electronics should not be turned ON, then OFF, then ON again quickly. This could blow a fuse. Do not turn it on again until both LEDs go off.

- If you blow a fuse, replace it with the same slow blow fuse located in the drawer-like compartment in the IEC mains connector.
- When you first turn on the Eros 500 there will be a brief inrush of power (your lights may dim for an instant).
- The unit is ready to listen to within 15 minutes after powering up, however for best performance allow at least 30 minutes of warm up.



Tip! Burn-in

For the best performance, this Vacuum Tube Amplifier can take 200 hours to break in. For circuit testing and quality assurance, Zesto Audio ships all the Eros 500 Select Power Amps with at least 50 hours of factory burn-in.

Grounding

- Grounding switches apply to the XLR Balanced inputs.
- Start with both ground switches down or off on both units.
- The ground switches work independently. You can adjust them for the least amount of noise.

The ground on the RCA is always floating.

Safety Tips

Fuses:

There are many safety features built into a Zesto power amp. The purpose of a fuse is to protect the amplifier, sometimes they wear out and sometimes the fuse will blow.

The mains fuse is the most likely fuse to blow, not the speaker fuse.

- The mains fuse is located in a drawer-like compartment in the IEC power connector.
- 120 Volts AC mains is 8 Amp 5mm x 20mm slow blow fuse.
- 220V, 230V/240V 50/60Hz mains is 5 Amp 5mm x 20mm slow blow fuse.
- All fuse types are not created equal. For example, a Slow Blow fuse is not the same as a Standard fuse.



Warning! The Eros 500 is designed for “Slow Blow” fuses. If you install a standard fuse, the fuse will blow when you turn the amp on.

- If a slow-blow fuse blows, the most likely cause is an output tube. If you replace the tube and the fuse blows again, contact your dealer.
- **Important!** Any use of aftermarket performance fuses used in the IEC mains will **VOID the manufacturer’s warranty.**

Speaker fuses

- The fuses directly under the binding post are designed to blow to protect the amplifier in case there is a short in the speaker or speaker cable.
- Speaker fuses are not the mains fuse.
- Speaker fuses are 6mm x 32mm 7A & 10A slow blow fuses.



Safety Tips!

- Power amp output tubes (KT150) get very hot when operating properly; tubes can exceed 300 degrees Fahrenheit.

- **Avoid** moving your amplifier with hot tubes. Tubes are the most vulnerable when they are hot, and it will break the filament, not the glass. However, you can change a hot tube as long as the amp is turned off and both LED lights are off.
- To protect your speakers, turn the power amp OFF when changing any cables in your system.
- If you change cables or move the amp, always double-check that your power cable is properly inserted. A loose power connection can blow a fuse and possibly damage this amplifier.
- If you break a tube, turn the unit off immediately. Wait until both LEDs are off for the high voltage to discharge completely to replace it.
- If you spill any liquids on the unit, turn it off immediately and call the factory.
- **Yearly maintenance:** It's recommended to use canned air to blow out the fan and back of the unit. **Turn the amp off, do not unscrew the back panel**, and insert the nozzle through the vent holes.

Trouble Shooting



Tip! Make your adjustments one at a time so you can isolate the problem.

How to know when a tube goes bad?

There are two ways an output tube can fail:

1. They will short out internally, usually in a very dramatic way and blow the mains fuse. This will not damage the amp. Just replace the tube and the fuse.
2. The tube goes "open", which means it loses its vacuum, and the top of the tube goes white and stops working. This will not damage the amp and will **not** blow the fuse. Just replace the tube.

If you blow a fuse, how do you identify which tube is bad?

- Many times, the tube will just look different. That's easy.
- If you can't identify which tube, then you will need to remove all 6 tubes, replace the mains fuse, and one by one insert all 6 tubes until you blow a fuse.
- Turn the unit off. Insert one tube in V1, then turn the unit on. If it's good (doesn't blow the fuse) then turn the unit off.

- Once both LEDs are off, insert a tube in V2.
- Keep V1 & V2 inserted. Repeat for the next 4 tubes until you blow the fuse.
- When the 12AU7 signal tubes go bad, it will slowly fade away. You can tell when your center image drifts to the left or right. We recommend you replace the signal tubes every 2 years.

Rhythmic Clicking

- This noise is usually found when a digital source, such as a network router or Satellite TV box is placed too close to the amp. Just move the component until the sound goes away.



Tip! It's a good idea to put all your lighting and digital sources on their own power strip.

Random Click or pop This is usually caused by a weak output tube. Switch each output tube with the same position in the other amp. Example V1 right unit with V1 left unit. If the noise changes to the other channel, it's the output tube you just changed. If it is a weak tube, we recommend you replace them in pairs, like V1 & V2, or V3 & V4, V5 & V6.

Hum from speakers - Usually a grounding issue. Flip the ground switches. Start with off.

Drifting center image – Usually caused by a 12AU7 signal tube. When they go bad, it will slowly fade away. You can tell when your center image drifts to the left or right. We recommend you replace it every 2 years.

LED lights – The front LED Amber light is the low voltage indicator, and the green LED light is the high voltage indicator. If both lights go out, check the mains fuse. If only one light goes out, you will need to call the factory.

Cleaning

- Dust your tubes and unit with a feather duster. A feather duster can be used on hot tubes while the unit is on.
- Don't use any liquid cleaners like glass cleaners on your tubes, just dust them or use water and a soft cloth. Many cleaners will remove the screen-printed Logo on the glass tubes.

- Gold-plated tube sockets and connectors are “self-cleaning”. **Do not** use any liquid aftermarket tube sockets or connector cleaners.
- The black powder coat finish can be cleaned with glass cleaner or alcohol. Sprayed onto a micro cloth. Never spray any liquids directly onto the unit.
- Use a stainless steel cleaner sprayed onto a micro cloth on the mirrored stainless steel curve. Use a separate super soft microfiber cloth and gently remove the residue.

Packing an Amp

1. Wrap the amp in the plastic sheet to protect the paint.
2. Install foam end caps by turning the amp on its side. Do not lift it.
3. Turn the amp upside down and place the box over it. Then turn the box right side up.
4. Insert the 4 corner protectors.
5. Wrap the signal tube box in bubble wrap, and insert in one of the outer compartments.
6. Wrap power tubes in bubble wrap and place them on top of the sockets on the deck.
7. **Important:** Secure tube bundle tightly so it will not move around inside the box during shipping. Add extra packing to secure it.
8. Do not place anything on the rear of the amp as it could damage the switches.

Warranty

All Zesto Audio equipment is covered by a 2-year limited warranty for parts and labor to cover defects in materials and workmanship. There is a 6-month warranty on the original 12AU7 vacuum tubes from the date of purchase and 90 days on the KT150. **Only KT150 and 12AU7/ECC82 supplied by Zesto Audio are covered under the warranty. All other tubes are purchased separately and are the responsibility of the owner.**

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

You can conveniently register your warranty online at <https://www.zestoaudio.com/warranty/>

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, modified, or damaged by accident or neglect, or in transport once in the possession of the 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.

- **Important! Any use of aftermarket performance fuses on the IEC mains will VOID the warranty.**
- **Any damage caused by tube rolling is not covered under the warranty.**
- **Any damage caused by inserting tubes incorrectly is not covered under the warranty.**
- **Broken alignment keys are not covered under the warranty.**

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.

The 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.