



mezzoforte MK II

Amplifier for Electrostatic, Dynamic and Planar headphones

Owner's Manual



This product contains high voltage circuitry. To avoid dangerous electric shock, do not disassemble or modify the unit.

RISK OF ELECTRIC SHOCK, DO NOT OPEN!

www.soltanusacoustics.com



Safety information (Please read first)

- Prior to use – About WARNING/CAUTION marks

Various WARNING and CAUTION marks are used in this manual for safe usage of the unit. The possible danger or trouble caused by disregarding the marks and mishandling the unit are classified as follows. Please read the manual with these WARNING/CAUTION marks in mind.

 WARNING	Disregarding this mark and mishandling the unit could result in serious injury or death.
 CAUTION	Disregarding and mishandling this mark might result in injury or physical damage.



This mark urges user to take precaution (warning included). Left example shows “electric shock” caution.



This mark tells prohibited actions. Left example shows “disassembly-forbidden”.



This mark tells actions you must take without fail. Left example shows “pull out plug from wall socket”.



WARNING



- Do not pull out or insert mains or headphone plug with wet hand to avoid electric shock.

- Do not use any other mains voltage than indicated.
- Do not bend, twist or pull the power cable by force, nor modify it.

- Do not cover the heat dissipation holes on side panels.

- Do not put metal, liquid or other object into the unit.

- Do not touch the output terminal for headphone



WARNING



- In case smoke comes out or unusual smell or sound is perceived, stop using and shut off the power immediately, and then pull out mains plug from wall socket. Further using the unit involves the risk of a fire or electric shock, etc. It is dangerous for a customer to repair the unit. Please contact your audio shop or the service division of our company.



- Do not remove the bottom plate or the top cover nor any of the covers.
- Do not attempt disassembly or modification.



CAUTION



Do not put this product on the following places. Otherwise, it may cause injury or unit failure.

- Places sensitive to vibration or shock, slanted or exposed to direct sunlight.

- Places with much moisture, humidity and dust.

- Places where temperature differs intensely or near heating appliance (stove, heater, etc.).

- Do not put headphone or any other object on the unit. It may cover the venting holes and cause heat generation resulting in unit failure.



- Dropping or giving a shock should be avoided. It becomes the cause of failure.

- Don't raise volume too much. Listening with large volume could lead to hearing damage. Listening with moderate volume is recommended both for your ear and for the unit.



Thank you for purchasing the Soltanus Acoustics Mezzoforte MK II amplifier, designed for electrostatic, dynamic, and planar headphones. Please read this manual carefully to ensure safe operation and to get the best possible performance from your unit for years of enjoyable listening.

Be sure to keep this manual together with your warranty card for future reference.

Features

The **Mezzoforte MK II** was created to capture the emotional essence of music in the most technically refined and rational way—while maintaining the same compact dimensions as the original **Soltanus Acoustics Mezzoforte**.

Designed with a deep understanding of amplifier engineering and the demands of discerning audiophiles, the voltage gain stage is built around the widely respected **ECC82** or the legendary **5814A** military-grade double triode. These tubes work in harmonic synergy with **hand-wound, wide-bandwidth output transformers**, delivering exceptional clarity and warmth. The Mezzoforte MK II supports a variety of compatible vacuum tubes, offering flexibility for tube rolling and tonal customization. Supported tube types include: **ECC82, 5814A, 6189, 12AU7, 6AU6, 12AY7, 13D8, 6GU7, 6072, and 6CC40**.

The tube in the **Mezzoforte MK II** can be replaced with **any ECC82-compatible substitute**, including high-quality vintage models, without the need for adjustment or tuning. Since the amplifier uses only a **single tube**, a matched pair is **not required**. Precise operational amplifiers handle current delivery, ensuring stable and consistent performance.

The unit is equipped with **short-circuit and over-temperature protection** for added safety and reliability.

The **Mezzoforte MK II** can be used in either a **vertical position**—doubling as a stylish headphone stand—or in a **horizontal position**, like a conventional desktop amplifier.

It supports both **RCA inputs** and a **balanced XLR input**, and can accept signals from any line-level analog source, with input levels ranging from **0.5 Vrms to 5 Vrms**.

The **Mezzoforte MK II** is equipped with a "**Direct Mode**" function, allowing it to be connected directly to a preamplifier output or used with your preferred attenuator or DAC. All three analog inputs—**two RCA** and **one balanced XLR**—can bypass the internal volume control for maximum signal purity.

Stable and powerful performance is ensured by a **double-filtered power supply** using a **capacitance multiplier topology**, delivering clean and consistent power to all amplifier stages.

The Mezzoforte MK II is capable of **simultaneously driving two electrostatic headphones** as well as **two dynamic or planar magnetic headphones**. It features:

- **Two STAX PRO** electrostatic headphone outputs
- **One XLR-4 balanced** output
- **One 6.3 mm stereo jack** output

These outputs are designed to handle **any headphone**, regardless of impedance or sensitivity—from ultra-demanding models like the **HIFIMAN Susvara** to the most sensitive in-ear monitors.

To ensure safe and optimal performance, the amplifier includes a **three-step output voltage selector**, allowing you to adjust the output level according to your headphones' sensitivity and voltage tolerance. **Please exercise caution** when selecting output levels to avoid overdriving sensitive headphones.

The chassis is constructed from **non-magnetic, 3 mm thick aluminum**, providing both mechanical stability and shielding from interference. Only **carefully selected, high-grade electronic components**—chosen for their reliability and sonic performance—are used, ensuring longevity and consistent sound quality over time.

Precautions for use



This product operates with **high internal voltages** and contains **potentially dangerous components**.

- **Do not open** the top cover or bottom plates of the unit.
- **Do not use** the amplifier in **humid, wet, or dusty environments**.
- **Tube replacement must only be performed by a qualified person, and only after consulting the manufacturer or an authorized service provider.**



Warning: Risk of Electric Shock
High-voltage circuits are present inside the unit. Attempting to open, dismantle, or modify the amplifier in any way is **extremely dangerous** and may result in **serious injury or death**.

Never attempt to service the unit yourself unless you are properly trained and authorized to do so.



The **driver unit generates heat during operation**. Do **not block the ventilation holes**. Place the unit in a well-ventilated area, and if installed in a rack or enclosed space, allow at least **5 cm of clearance** above and around the sides of the unit to ensure proper airflow.

Be especially cautious when the **"LEVEL CONTROL"** switch is set to **"EXTERNAL"**. In this mode, the internal volume control is bypassed, and the signal level is entirely dependent on your external source (e.g., DAC or preamplifier).

Uncontrolled high volume may cause **damage to the amplifier or headphones**.

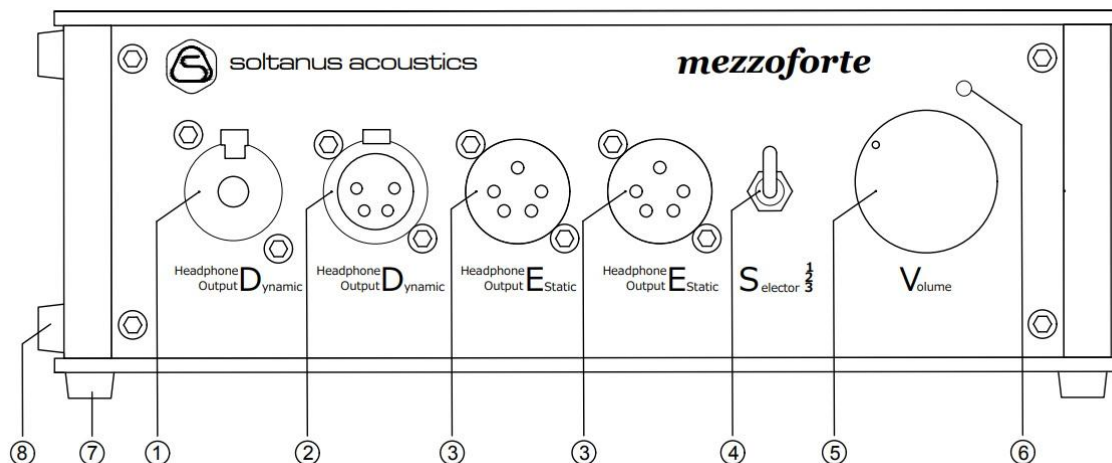
Do not switch to "EXTERNAL" mode while wearing your headphones, as sudden high-volume output may occur, posing a risk to your hearing and equipment.

Do not leave the unit powered on when not in use. Continuous operation may lead to **overheating and possible damage**.

Always protect the unit from **direct sunlight** and keep it away from environments with **ambient temperatures above 35°C (95°F)**.

Switches and functions (Front panel)

1. 6.3 mm Jack output for Dynamic or Planar headphones.
2. 4 Pin XLR output for Dynamic or Planar headphones
3. Sockets for PRO Type Electrostatic Headphones: insert 5-pin type headphone plug.



When power on and off:

It is recommendable to turn down the volume control knob to "0" if the unit is in **INTERNAL** mode.

In **BYPASS** mode turn ON the Mezzoforte at last, after the used preamplifier or DAC and turn it off first, before preamplifier or DAC.

4. Three position Input selector: 1 position RCA 1 input, 2 position RCA 2 input, 3 position Balanced XLR input is selected, by built in relay circuits.
5. Volume knob. We recommend to return volume knob to "0" when you turn on or off the unit. The volume knob is in function if the nr. 5 switch on the back panel is turned to INTERNAL position. On BYPASS position the volume knob is not functioning, it is bypassed to enable you to use external volume control. In this case please turn ON the Mezzoforte amplifier at last and turn it OFF first.
6. Power indicator LED
7. Optional legs for horizontal use.
8. Legs for vertical use.

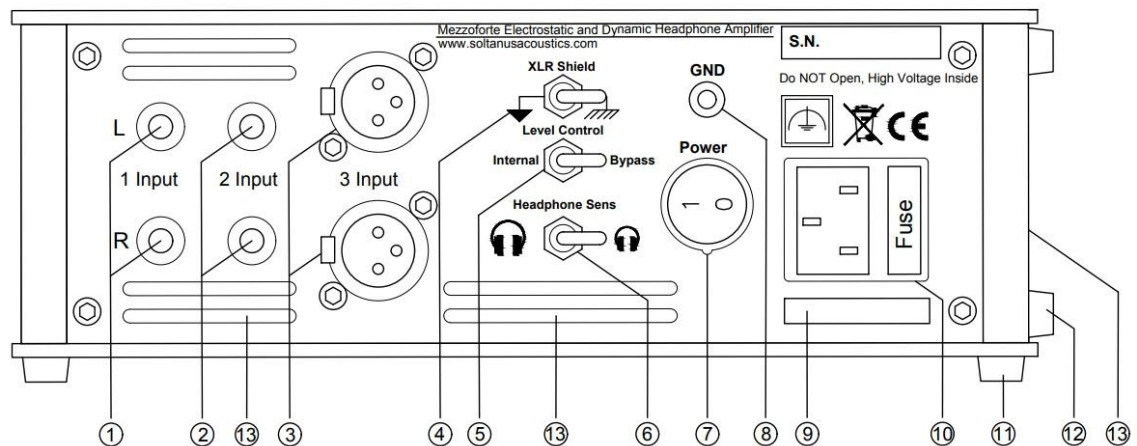


Terminals and functions (Rear panel)

1. LINE1: RCA input terminal
2. LINE2: RCA input terminal
3. LINE3: XLR input terminals for equipment provided with XLR balance output. XLR balance input polarity is 1-SHIELD, 2-HOT, 3-COLD. When connecting equipment with 3-HOT, use polarity conversion adaptor or conversion cable.
4. XLR shield switch. Position on left: shield is connected to PCB 0 point. Position in center: the shield is not connected. Position on right: shield is connected to the chassis GND. You can select the position to have a minimum hum in your system. (Usually it is useful in recording studios, with lot of equipment connected together)
5. LEVEL CONTROL: volume control operation can be switched either to the internal volume of the unit, or to the external volume using attenuator or preamplifier or DAC with built in preamplifier.
 - INTERNAL: volume level can be controlled by internal potentiometer.
 - BYPASS: level can be controlled by preamplifier, DAC with built in preamplifier or external volume controller.
6. HEADPHONE SENSITIVITY switch can control the output level for the dynamic or planar headphones in three steps.
 - Right position in horizontal (down in vertical position) with figure of 'little' headphone is for headphones in range of 90-100 dB of sensitivity. The output voltage in this position is 2.6 Vrms max.
 - Left position in horizontal (up in vertical position) with figure of 'big' headphone is for headphones in range of 80-90 dB of sensitivity. The output voltage in this position is 10 Vrms max.
 - Center position is for headphones with sensitivity 100 dB and above. The output voltage in this position is 1.5 Vrms max.

Please take care of the position of this switch to protect your headphones from too high output voltage to avoid damage of your headphones.

Also choose the position where the hum in your headphone disappear. You can hear a little hum in too high output position for your headphone i.e. with too sensitive headphones and also you can overload your headphone this way!



7. Power switch. Mark 0 is the off and 1 is the on function. Before connecting, make sure that "Power switch" is off 
8. Extra GND socket with 4mm inside diameter.
9. Voltage and fuse indication: depending on your country's voltage.
10. AC inlet with fuse: insert power cable.
11. Optional legs for horizontal use (included accessory)
12. Legs for vertical usage.
13. Air vent openings. Do not cover them! Please read precaution section.



Specifications

•Frequency response: 1Hz - 120kHz +0, -3dB for dynamic outputs and 4Hz - 60kHz +0, -3dB for electrostatic outputs.

•Rated input level: 77mV (at 100V electrostatic output) . 540mV (at 700V electrostatic output)

•Maximum input level: 30Vrms. (at minimum volume) and 1.35Vrms at BYPASS mode. We recommend DAC preamplifier output to be set to 5V output max.

•Gain: 62.3dB (x 1300) for electrostatic outputs.

•Harmonic distortion: 0.01% or less (1kHz)

•Input impedance: 50k Ω (RCA input), 50k Ω x 2 (XLR input)

•Maximum electrostatic output voltage: 700Vrms (1974Vp-p) / 1kHz

•Maximum output voltages for dynamic or planar headphones: 10/2.6/1.5Vrms (28.2/7.3/4.2 Vp-p) / 1kHz

•Bias voltage: 580V DC

•Mains voltage: AC110-120V/AC230-240, 50/60Hz (depending on your country's voltage)

•Power consumption: 50W/Max

•Operating temperature: 0 to 35 degrees C (less than 90% humidity, non condensing)

•Dimension: 230 (W) x83 (H) x255 (D) mm (maximum protruding portion included in horizontal position)

•Weight: 5.6kg

•Others: equipped with volume bypass function.

Specifications and appearance are subject to change without notice for improvement.

This product is adjusted to mains voltage depending on each country.

Care and cleaning

•Pull out power cable from wall socket and wipe it with dry soft cloth. When very dirty, wipe off dirt with wet cloth and then again with dry cloth.

•Do not use benzine, thinner or alcohol since paint, printing, etc. may come off. Before using chemical dust cloth, check its attached explanation if it is usable for audio equipment.

Accessories

- Owner's manual.....1
- Warranty card.....1
- Optional legs for horizontal use.....4

Troubleshooting

No Sound

- Is the plug of Power cable inserted into the wall socket ?
- Is the power switch on ?
- Does LED on the front panel light up ?
- Check that nothing is wrong with connecting cable.
- When connected to pre- or integrated amplifier, check that the amplifier selector is set to connected source.

Sound is distorted

- Is supply voltage in stipulated range ?
- See that "LEVEL CONTROL" is not in "EXTERNAL" position. Excessive input level can distort the sound.
- Distortion will arise if the volume is turned up too high.

Unbalanced L/R sound

- Are input signals all right?
- The tube's L and R channels can have difference in gain. Change the tube.

Hum noise is heard

- The grounding can be broken in power cable or in wall socket.
- Are input terminals connected correctly ? If the ground side of cable is floated or in poor contact, hum noise may come out
- In case of buzzing hum noise connect GND terminal to the ground terminal.
- Is there any poor contact ?
- When hum appears on XLR input try to find best position for nr. 4 GND switch.
- Is supply voltage in stipulated range ?
- Because of the non-magnetic aluminum chassis hum noise can be induced through connected equipment's. If equipment's with large-sized transformer or microwave oven etc. are located near driver unit, keep them away from the unit

If you have other problems than described above, please contact your dealer or our distributor in your country or the manufacturer.

When you replace the vacuum tube of drive unit, be sure to ask the purchased store or distributor. Disqualified vacuum tube may sometimes cause breakdown.



Warranty

The Soltanus Acoustics products are under warranty as indicated by the original date of purchase (the “Warranty Period”).

What’s covered

Soltanus Acoustics warrants to the original purchaser that Soltanus Product will be free of defects related to manufacturing, parts, materials, and workmanship under normal and accepted use in accordance with Soltanus Acoustics published guidelines. Soltanus Acoustics guidelines include, but are not limited to, information contained in technical specifications, user manuals and service communications.

What’s not covered

This warranty does not cover defects resulting from improper or unreasonable use or maintenance; cosmetic damage, including but not limited to scratches, dents and broken parts; failure to follow operating instructions; accident; excess moisture; excess temperature; power surges; connections to improper voltage supply; unauthorized alteration or modification of original condition; damage caused by use with non-Soltanus Acoustics products; products purchased from unauthorized dealers; or defects incurred during transportation for which claims must be presented to the carrier.

What we will do

We will, at our sole discretion and to the extent permitted by law, repair or replace (using new or refurbished Soltanus Acoustics Products) Soltanus Acoustics Products that are under warranty for the period listed, from the date of original retail purchase.

What we will not do

We will not pay shipping, insurance or transportation charges, or any import fees, duties and taxes.

Warranty eligibility statement

To be eligible for service under this warranty you must include with the repair item(s) a valid bill of sale from an authorized Soltanus Acoustics retailer detailing the following information: Retailer’s name, Original date and proof of purchase, Serial Number.

Additional product information and limitations

Warranty replacements Soltanus Acoustics strives to improve the performance of our products, and therefore reserves the right to make changes to our design/specifications/materials at any time without notification. Soltanus Acoustics may, at its discretion, choose to replace the Soltanus Product completely with a new or remanufactured product. In the event of product obsolescence, a suitable replacement will be chosen based

upon the features, the intended use (as determined by Soltanus Acoustics) and the retail price of the original Soltanus Acoustics Product.

Product

All warranty replacements are guaranteed for 90 days or until the conclusion of the Warranty Period of the original Soltanus Acoustics Product, whichever period is greater. Soltanus Acoustics does not provide advance replacements for Soltanus Acoustics Products.

Determining authority

Soltanus Acoustics will be the final determining authority for all potential warranty claims for service and/or replacement.

Other conditions/rights

EXCEPT AS PROVIDED IN THIS WARRANTY AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, SOLTANUS ACOUSTICS IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY, INCLUDING BUT NOT LIMITED TO LOSS OF USE; LOSS OF REVENUE; LOSS OF ACTUAL OR ANTICIPATED PROFITS; LOSS OF GOODWILL; LOSS OF, DAMAGE TO, COMPROMISE OR CORRUPTION OF DATA; OR ANY INDIRECT OR CONSEQUENTIAL LOSS OR DAMAGE HOWSOEVER CAUSED INCLUDING THE REPLACEMENT OF EQUIPMENT AND PROPERTY. THE FOREGOING LIMITATION SHALL NOT APPLY TO DEATH OR PERSONAL INJURY CLAIMS, OR ANY STATUTORY LIABILITY FOR INTENTIONAL AND GROSS NEGLIGENT ACTS AND/OR OMISSIONS. SOME STATES IN THE USA OR OTHER COUNTRIES. DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU. TO THE EXTENT PERMITTED BY LAW, THIS WARRANTY AND THE REMEDIES SET FORTH ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL, WRITTEN, STATUTORY, EXPRESS OR IMPLIED. SOLTANUS ACOUSTICS DISCLAIMS ALL STATUTORY AND IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND WARRANTIES AGAINST HIDDEN OR LATENT DEFECTS, TO THE EXTENT PERMITTED BY LAW. IN SO FAR AS SUCH WARRANTIES CANNOT BE DISCLAIMED, SOLTANUS ACOUSTICS LIMITS THE DURATION AND REMEDIES OF SUCH WARRANTIES TO THE DURATION OF THIS EXPRESS WARRANTY AND, AT SOLTANUS ACOUSTICS’S OPTION, THE REPAIR OR REPLACEMENT SERVICES DESCRIBED HEREIN. SOME STATES (INCLUDING COUNTRIES AND PROVINCES) DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY (OR CONDITION) MAY LAST, SO THE LIMITATION DESCRIBED ABOVE MAY NOT APPLY TO YOU.

Warranty period for Mezzoforte MK II

Three years from the date of purchase.

