

# MEZZABARBA

CUSTOM AMPLIFICATION



## M ZERO OVERDRIVE

### User manual

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### **IMPORTANT:**

**PLEASE READ SAFETY INFO ON PG. 11 CAREFULLY BEFORE SWITCH ON THE AMP**

The **M ZERO** is my personal dream, the ultimate amp, as I have always envisioned it, with no compromises on dynamics or technology.

This is why I undertook the project without worrying about budget or production constraints: I simply wanted to create my best amp ever, period. And I did this by drawing upon every little bit of experience and passion as I possibly could.

Inspired by the founding fathers of amplification, I stood on their shoulders and tried to look beyond.

This is how the **M ZERO OVERDRIVE** was born. A double preamp channel amp that combines elegance, brute force, and an infinite array of overtones in between.

I based its engineering on Point To Point technology, not for its superior quality compared to PCBs, but because it allowed me to listen and mold, in real time, the emotional impact of the output. Just as a tailor, I seamed sound, electrons, and energy into what I believe to be my masterpiece. And this is why it carries my name.



*Pierangelo Mezzabarba*

-Masotti Guitar Devices CEO and Founder-

## Front panel



From left to right:

- Guitar input jack.
- Brite and Boost switches.
- Drive and Overdrive controls -these allow for gain management in the preamp section.
- Equalizer section: Bass, Mid, Treble.
- Volume 1 and Volume 2 -respectively, for the Drive and Overdrive channels
- Depth, Feedback and Presence
- Stand-by/Active switch
- Master power switch
- Power indicator

## Rear panel



From left to right:

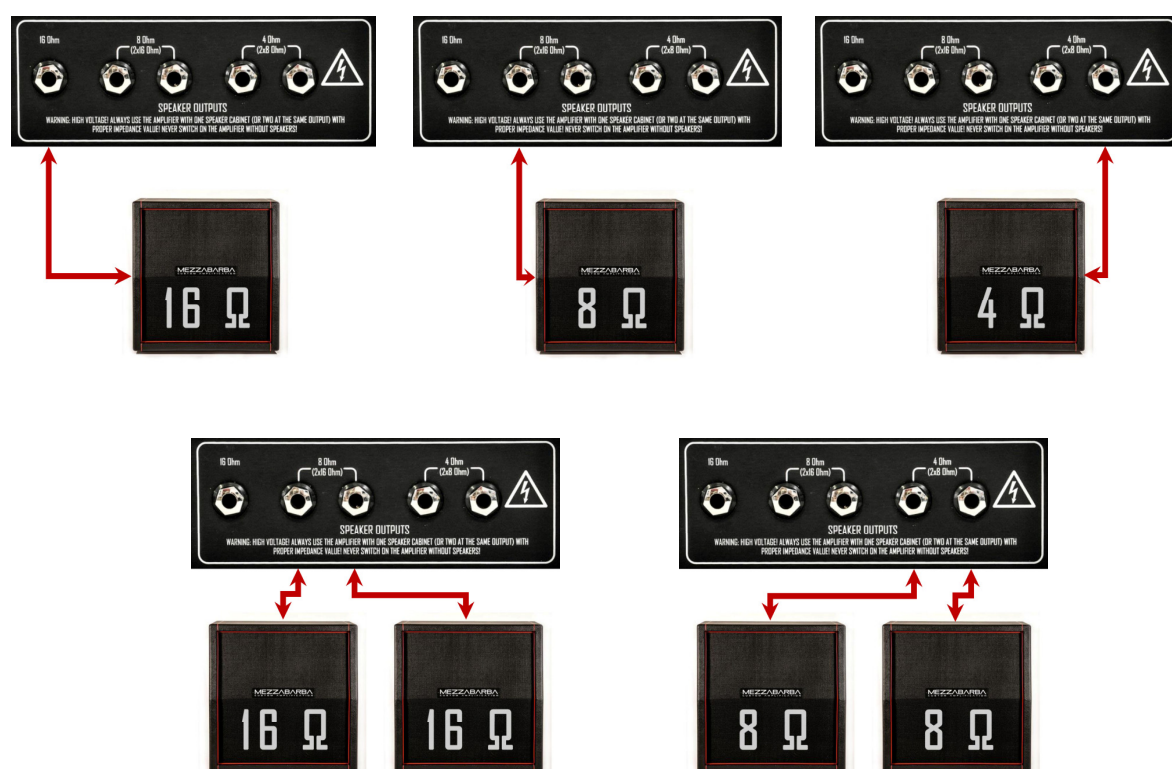
- IEC plug
- Mains fuse
- HV fuse
- Footswitch connector -standard stereo jack or MIDI style, for controlling multiple functions;
- SEND and RETURN connectors -these allow for a) processing sound through external effects or b) utilizing only the PRE section (by taking the signal from SEND) or the final section (by connecting a preamp to the RETURN input);
- SLAVE OUT with dedicated pot. Ideal for tri-amping or re-amping.
- Speaker output jacks: 1 x **16 ohm**, 2 x **8 ohm** and 2 x **4 ohm**.

You can connect one or two speakers at the same time as long as the total impedance is equal to that indicated on the connectors. For example, you can connect only one, 4 ohm speaker to one of the two connectors marked as "4 Ohm (2X8 Ohm)"; or two, 8 ohm speakers to the two connectors marked as "4 Ohm (2X8 Ohm)". In the same way, you can connect only one, 8 ohm speaker to one of the two connectors marked as "8 Ohm (2X16 Ohm)"; or two, 16 ohm speakers to the two connectors marked as "8 Ohm (2X16 Ohm)".

Finally, you can only connect one, 16 ohm speaker to the connector marked as "16 Ohm".

Whenever connecting only one speaker, the maximum input power must be equal to or greater than 100W Rms. Whenever connecting two speakers, the maximum input power of each speaker must be equal to or greater than 50W Rms.

**IMPORTANT: Do not connect two speakers to inputs with different impedance values (e.g. one to the 4 ohm input and the other one to the 8 ohm input)**



## Turning on your M ZERO

**IMPORTANT: Before turning on the amp, make sure the power cable is intact and has a ground connection, the electrical system you are plugging into is properly grounded, and the impedance of the speaker is equal to that of the output jack to which it is connected.**

- a) Before connecting the power cable to the M ZERO, make sure the power switch is on the OFF position and that the Standby switch is on STANDBY.
- b) Plug in your guitar;
- c) Switch on the amp keeping it on STANDBY mode;
- d) After about 2 minutes, move the Standby switch to ACTIVE.

You are now ready to start experimenting the M ZERO's amazing potential.

When switching off the amp, turn the Standby switch to STANDBY, wait 15-20 seconds, and turn the main power switch to OFF.

## Basic sounds

The M ZERO series was conceived to express its full potential in any musical context, hence the preamp, effects loop, and power amp sections were all specifically engineered to deliver an unusual array of possibilities. Whether you are using an M ZERO amp in combination with distortion pedals, digital effects, or on its own, you will be amazed by the response you'll get in any of these contexts. Imagine the dynamics and range of the best, late 60s' Brit amps, beautifully infused with a more modern tone, all of which results in an elegant elaboration of a classic, evergreen sound.

Although particularly suited for Rock and Rock-Blues, the M ZERO's capabilities extend way beyond, comprising anything from Metal to Pop,

The M ZERO Overdrive is a high-gain evolution of its single-channel sister; the fruit of a 20-year search for the ultimate, devastating, yet classy overdrive tone. The first channel is identical to the MZERO Standard whereas the second channel gives you the definition, fluidity, warmth, and harmonics that only thermoionic tubes can deliver.

The resulting dynamics, combined with the guitar volume and your personal touch, will open a portal to a virtually infinite world of tone which will make the MZERO Overdrive the last amp you will ever need.

The Depth and Presence controls on the front panel allow you to further chisel your tone. The former allows to control the damping of the cones, hence the responsiveness of the bass frequencies, giving them more or less body according to your taste. The latter allows you to control the mid-high frequencies.

Finally, the **Feedback** control allows you to control the negative feedback loop of the power amp, allowing for anything from smooth, controlled sounds all the way the wild, raunchy tones that made the old school Brit amps so legendary.

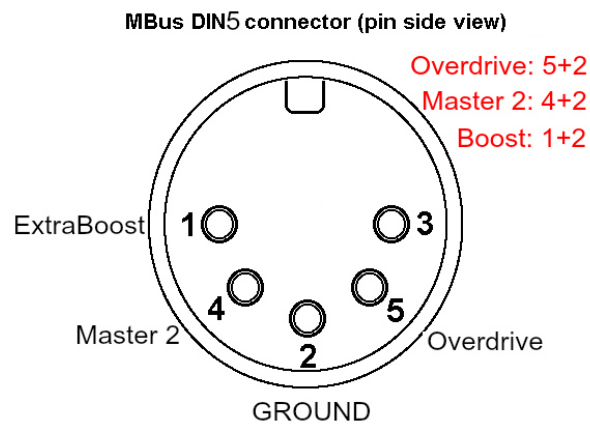
## Standard Footswitch



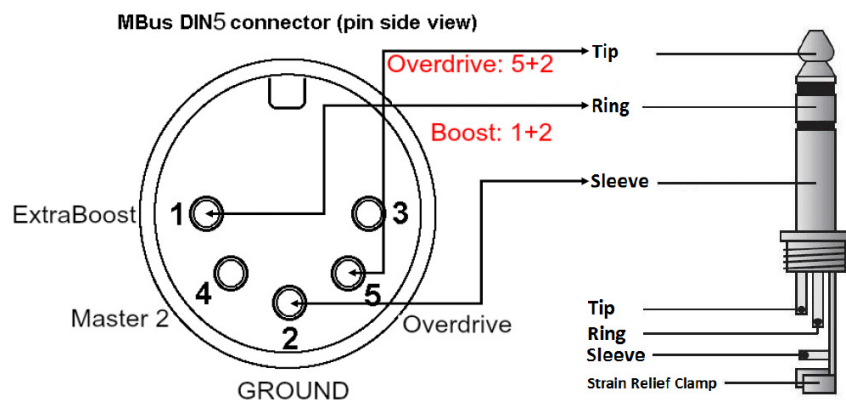
## Triple Footswitch (Dual Master option)



## Footswitch Diagrams



## MZERO TRS DIN Connections



## Usage and periodical maintenance

The M ZERO does not require any more precautions and maintenance than any other tube amp. Make sure you do not obstruct the air cooling grids located on the top, front, and back of the amp, in order to allow for optimal cooling.

When turning on the amp, it is of crucial importance to wait for at least 2 minutes before deactivating the Standby switch in order to allow the power tubes to reach their ideal temperature.

The external chassis can be cleaned with a clean, damp cloth. The paint is resistant to normal cleaning products but not to aggressive solvents (benzene, acetone, etc.) which should therefore be avoided.

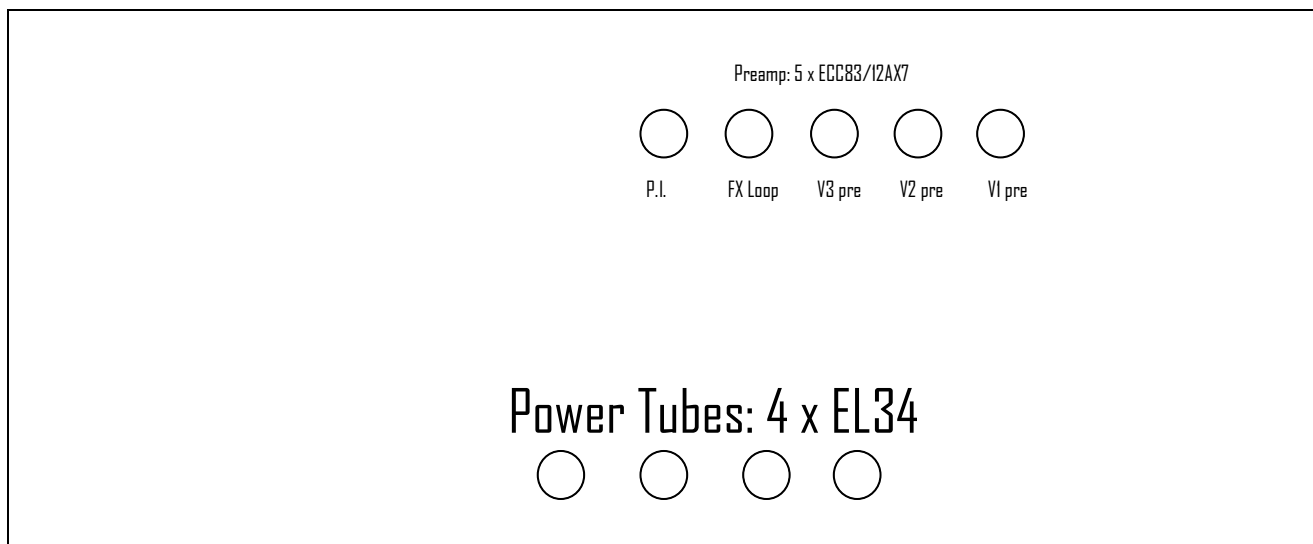
If you are using your M ZERO mostly in a studio setting, you will simply need to periodically replace the tubes, especially the power ones, just as you would in any other tube amp. If on the other hand, you use your M ZERO mostly on the road, it is advisable to periodically check that all of the internal components are properly connected and functioning. Given the heavy-duty build quality of your M ZERO, this might be necessary as little as once a year, and in any case only if you use the amp on the road every day.

**Warning: the afore-mentioned checks must be carried out solely by qualified MGD (Masotti Guitar Devices) personnel and/or authorized technicians. Before scheduling any such check, please contact MGD for full advise.**

## Replacing tubes and adjusting bias

All of the factory-supplied tubes in your MZERO are accurately handpicked by MGD. The five ECC83/12AX7 tubes have a life expectancy of several years and their replacement does not require any additional adjustments.

The layout of the tubes is represented in the following diagram:





The life expectancy of the four E34L power tubes depends on the average volume the amp works at, and can range from about 12 to 48 months. It is crucially important to replace them all at the same time, with high quality brand tubes. You will most likely need to adjust the bias with the internal trimmer. Any short-circuits caused by a faulty tube can lead to burning one or more fuses, which must be replaced by **qualified MGD personnel and/or authorized technicians**.

The brand and type of both the preamp and the power tubes, affect the overall amp tone and can be chosen based on personal taste. Feel free to contact us for any advise!

**Warning: replacement of tubes and internal fuses, adjustment of the bias and any other operation inside the M ZERO must be carried out by qualified MGD (Masotti Guitar Devices) personnel and/or authorized technicians, while the amp is powered off and has been completely disconnected from a power source for at least 30 minutes!**

## Troubleshooting

Here below are some of the problems that you might experience when operating your M ZERO. Some of them are trivial whereas other ones might require the intervention of **qualified MGD (Masotti Guitar Devices) personnel and/or authorized technicians**. Please do not hesitate to contact us when in doubt, we are at your complete disposal for any help you may require.

- ✓ **M ZERO is not turning on.** Check whether there is power running to your socket. Check the power cable. Check the fuse on the rear of the unit and replace it with an identical one. If the problem persists, contact MGD.
- ✓ **The power indicator is lit but no sound is coming from your amp.** Check that all of the jacks are properly plugged in. Check the Drive, Tone, and Volume controls, making sure none of them are on 0.
- ✓ **You hear a scratchy noise while turning one or more pots.** Do not attempt to clean with spray products! Please contact MGD and we will be happy to replace the faulty pot(s)
- ✓ **Sound quality has deteriorated; the amp tends to feedback or makes strange noises.** One or more tubes need replacement. Please contact MGD for advise and service in order to continue getting the best out of your MZERO.

## Fuses

M ZERO is equipped with 2 fuses:

- 1) HV FUSE: External, High-Voltage fuse. 250V 1,25 A-T delayed;
- 2) MAINS FUSE: External Mains fuse: 250V 4 A-T delayed (6,3A-T delayed for 117V).

The external Mains fuse can fault also following a series of power outages and must therefore be replaced by qualified personnel with an identical one.

**Warning: replace the external fuse with one with identical characteristics! Internal fuses must be checked and replaced only by MGD personnel or authorized technicians.**

## Warranty

Limited Lifetime Warranty: New Mezzabarba Amplifiers are lifetime warranted to the original purchaser against failure of parts/materials and workmanship if purchased through an authorized dealer. No other warranty applies.

Tubes, transformers and speakers are warranted for a period of ninety days. Pots, connectors and switches are warranted for a period of two years. This warranty applies only if the amplifier has not been damaged by accident, misuse or as a result of repair or modification. The use of non-authorized Mezzabarba tubes and replacement parts may void this warranty. Mezzabarba reserves the right to make any design changes without notice or obligation to incorporate these changes in products previously purchased. Masotti is not liable for any freight or duty charges.

Return Authorization is required for all products returned to Mezzabarba Custom Amplification. In most cases we will be able to supply the technical information needed to repair the amplifier thus avoiding the shipping issues and costs. All shipping costs to/from Mezzabarba shall be borne by the owner, after 90 days of purchase. Mezzabarba will be responsible for the factory-to-customer return shipping cost to the original owner for only the first 90 days of ownership. Authorized Returns should be shipped in the original Mezzabarba box and original packing materials. A return packing/handling charge may be applied to any product shipped to Mezzabarba in sub-standard or damaged shipping box and materials. This is to make sure your amplifier is packaged safely in a new box and to recover our costs for doing so. Since the courier doesn't honor damage claims for non-original packaging, Mezzabarba is not responsible for any factory-to-customer return shipping damage to products shipped in non-original box and packing materials. A copy of the final Sales Receipt from an Authorized Mezzabarba Dealer is required with this Warranty Registration.

## Customization options

Your M ZERO can be equipped with a Dual Master control upon request. We are at your complete disposal to discuss any other solution to optimize your M ZERO, Midi options included.

**IMPORTANT: it is not possible to replace a given type of power tubes with another: if your M ZERO is equipped with EL34 (or the equivalent, E34L), they cannot be replaced with 6L6 or vice versa.**

## Important safety information

Your M ZERO was engineered and built according to the strictest electrical safety standards as per international norm, EU IEC-62368 and according to the electromagnetic compatibility requirements specified by international norms EN 55032. It thus fully complies to EU standards and therefore carries the CE marking on the rear panel.

Our amps utilize as much as possible eco-compatible materials. Do not however dispose of any parts of the amp in the environment and please use special containers as per EU regulations.



To reduce the risk of electric shock or wounds, please follow the instructions on this manual very carefully, with particular reference to the following ones:

- Do not open the chassis for any reason. Removing the rear grid or removing the metal chassis from the wooden frame will expose you to live circuitry which is powered by potentially hazardous electric tension. Should you need to replace the tubes or the internal fuses, please contact either MGD or an authorized technician.
- Do not remove any screws from the amp.
- Do not expose the amp to rain or moisture, steam, metal particles and anything that may penetrate inside the amp through the air cooling grids.
- Do not obstruct the air cooling grids. Always make sure that the top and rear parts of the amp are not obstructed.
- Do not introduce any foreign objects (metallic or insulating) in the air cooling grids.
- Do not use the amp without the protective metal grid on the rear.
- Do not insert objects other than the standard jacks inside the amp's input and output jacks.
- Do not expose the amp to excessive heat.
- Do not subject the amp to excessive vibrations or shock, especially when it is powered on.
- When setting up the amp in a room temperature environment following storage and/or transportation at very low temperatures one, dew might form on the outside and/or inside of the amp. Make sure that the amp stays at room temperature for about 10 minutes before turning it on in order for the dew to evaporate.
- Always use standard power cables making sure they are intact. Do not remove or interfere with the ground connection of the plug or socket.
- Always check that the mains power complies to the specs written on the rear panel of the amp.
- Disconnect the device from mains during thunderstorms. ☐
- Should the HV fuse fail in absence of exceptional external events such as violent power surges, severe thunderstorms, etc., the cause might be one or more faulty power tubes. Do not attempt their replacement on your own. Contact MGD or an authorized technician.
- Do not force pots and switches.

## Technical specifications

Power supply: 230V or 117V  $\pm 10\%$  - 50Hz or 60HZ

Power consumption: 350VA

Input impedance: 1M $\Omega$ .

Output power: nominal 100W rms

Output impedance: 4-8-16 ohm

Tubes: 5 x ECC83/12AX7, 4x E34L/EL34

Environmental operating parameters: 10-40°C, 30-90% humidity without condensation

Dimensions: 63 x 24 x 24h cm.

Weight: 20 Kg

## Contacts

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