

LAB 12

Handcrafted High-End Audio

Owner's Manual

MIGHTY

Class A Single Ended Power Amplifier

www.lab12.gr

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IT IS YOURS!

Thank you for selecting the LAB12 MIGHTY, a really audiophile Class A power amplifier. Every component on it is designed to provide smooth and untreated sound. It is a full tube amplifier with 6n1p NOS Russian driver tubes and EL34 Russian on power stage. MIGHTY can cooperate gratefully with any preamplifier on the market and it is the perfect match for TRUE or HPA. Mighty has the ability to nail you down on your couch and make you listen all your music collection again. All the power you need for a normal range pair of speakers is here but the most remarkable point is that you will receive a fluid, wide and addictive consonant sound with any choice of music style. All components are carefully chosen after hours of listening and testing, while paying great attention to every detail affecting the final outcome. As every lab12 device, MIGHTY has an ultra solid construction with handcrafted finishing, luxury automotive metal paint and retro analogue V/U meters.

Do not forget that your MIGHTY is totally handcrafted with perfectly matched parts of the finest selections. You have to know that to reach the optimal performance your MIGHTY need at least 200 hours of listening. In this time all components go from “burn in” period to stable.

Before setting up your new MIGHTY, we encourage you to read this manual thoroughly to properly acquaint yourself with its features. We love music and audio devices, we build your new device with emotion and personal treatment.

The information contained in this manual is subject to change without notice. The most current version of this manual is available on our official website at <http://www.lab12.gr>

Features

- EL34, 6550, KT88 compatible (EL34 form factory)
- Triode / ultra linear selector switch
- Handcrafted custom audio grade transformers (T.GIATRAS)
- No feedback design
- Toroidal power transformer (T.GIATRAS)
- Special audio grade matched parts in every stage
- SRS[®] implementation
- Fine symmetry[®] implementation
- Matched tubes
- Gold plated teflon rca connectors
- Gold plated tube sockets
- Analog retro nissei VU meters
- 5mm aluminum face panel with luxury painting
- Five years guarantee

Installation & Placement

The **LAB12 MIGHTY** should be placed on a solid flat surface.

You should avoid placing it near a heat source as this could compromise the MIGHTY performance and reliability.

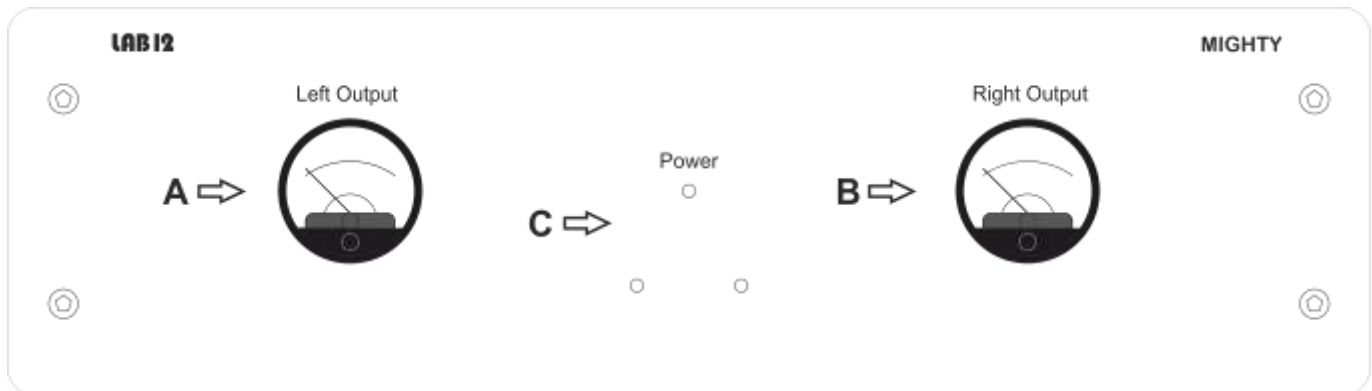
Carefully put the tubes in dedicated sockets. Make sure that tubes are perfectly snap in to sockets. Tube pairs are always matched so is not important witch one you put in every channel.

Due to high power tubes design, MIGHTY chassis could be hot so you should never place another hot component directly near this device. **Make sure the device has enough space to ventilate.**

Tubes will be hot, this is normal. Be careful not to touch the tubes during the operation to avoid any injuries.

Take care of the finest luxury finish of front panel with a soft cloth.

Front Panel



MIGHTY Front panel

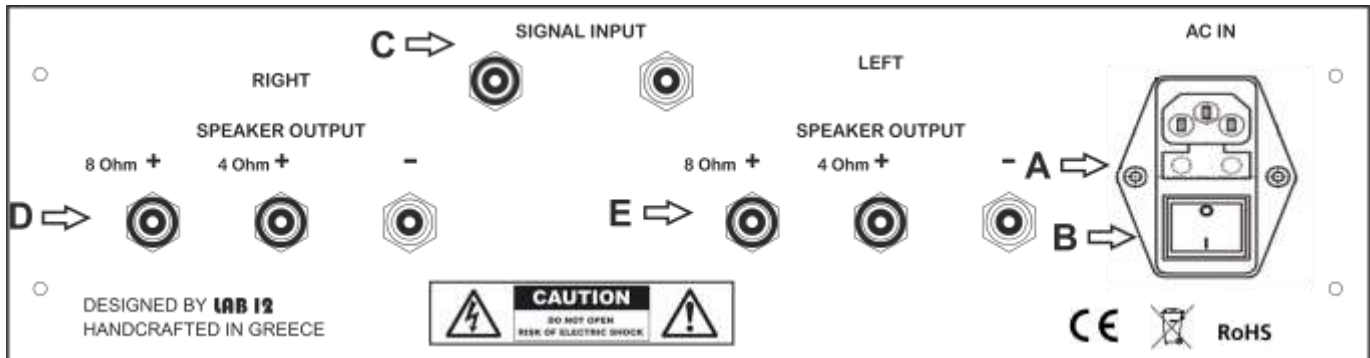
At front panel you will see three indication LEDs and two VU meters.

The three LEDs (C) indicates that the device is powered on.

To the left of 3 LEDs you see a retro analog VU meter (A). You can accurately monitor the output level of left channel on dB scale.

To the right of 3 LEDs you see a retro analog VU meter (B). You can accurately monitor the output level of right channel on dB scale.

Rear Panel



MIGHTY Rear panel

In rear panel you will find the connection inputs and outputs.

To the right side you will find an **IEC AC input**. Below IEC input is located the main fuse holder (A) and the **Power switch (B)**.

A pair of RCA connectors (C) is about the middle of the back panel. It is the input of signal from your preamplifier.

Bellow signal input you can find the speaker outputs. (D-E). You have the choice of 4 or 8 ohm output for perfect matching with your speaker impedance.

Main connections

Connect a High Grade Power cable to the IEC input and to your wall socket. Make sure that your wall socket provides a good ground before connecting the power cable. You must supply 230 to 240 Volts AC (50Hz). (Every **MIGHTY** is tuned and calibrated using the **LAB12 Knack Power Cable**)

Connect to your Preamplifier

Connect the preamplifier analog output to the analog line level input of your MIGHTY Power Amplifier. Make sure about the correct channel connections. We suggest to use a good quality interconnect cable pair.

Connect your Speakers

Connect your speakers to the additional output of MIGHTY (connect speakers from 2 to 4 ohm at **4ohm** positive bind, speakers for 4 to 16 ohm at **8ohm** bind). Make sure about the phase and polarity of speakers, always connect "plus" (red) bind of Mighty to "plus" (red) bind of speaker and same with black.

Notes:

You can choose the operation of MIGHTY between triode or Ultra Linear pentode mode, to tune the sound closest to your taste.

This can be done thru two toggle switches on the back of power tubes. Position both switches towards to transformers for triode mode or towards to tubes for Ultra Linear pentode mode.

You can change the operation even amplifier is turned on with just lowering the volume.

MIGHTY is fully compatible with the best octal tubes (EL34, 6550, KT88). You can use any of these three types of tubes with no problem.

For the safety of your equipment

! Make sure that all of your equipment is turned off before any connection.

! To avoid damaging your speakers you have to turn on the MIGHTY some seconds after turning on your preamplifier and turn it off some seconds before turning off your preamplifier.

! Never turn on MIGHTY without connected speakers on it. It is possible to damage tubes or even output transformers.

Specifications

- Power: 230/240 Volt AC 50Hz
- Power consumption: 120 VA max (2.5 A fused)
- Rated output power: 10 watt per channel
- Frequency response: 20Hz-20KHz (-0.9dB)
- Input impedance: 100K ohms
- Output impedance: 4,8 ohm
- Tube complement: 2x 6n1p dual triode NOS, 2x el34 power pentodes (6550, KT88) compatible
- Inputs: 1x line stereo (RCA connectors)
- Available colors: Etna Black, Pearl White, Custom color
- Dimensions (WxHxD): 43x19x29 cm
- Weight: 8.5Kg

Warranty

This device has 5 years warranty from the day of purchase for all parts exclude valve tubes.