LAB 12
Handcrafted High-End Audio

Owner's Manual

Dac1
Special Edition

Handcrafted Digital to Analog Converter

www.lab12.gr

v1.5

Table of Contents

IT IS YOURS!

Thank you for selecting the LAB12 Handcrafted Digital to Analog Converter (DAC). Every component on it is designed to provide smooth and untreated sound. Pure analogue sound with non oversampling conversion by 8 matched parallel Phillips TDA1543 in sophisticated configuration and smooth output through Dual triode tube I/V stage. All components are carefully chosen after hours of listening and testing, while paying great attention to every detail affecting the final outcome. Ultra solid construction with handcrafted finishing, luxury automotive metal paint and retro analogue V/U meters.

Do not forget that your DAC is totally handcrafted with perfectly matched parts of the finest selections. You have to know that to reach the optimal performance your DAC1 need at least 200 hours of listening. In this time all components go from "burn in" period to stable.

Before setting up your new DAC1 Special Edition, 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

Unpacking
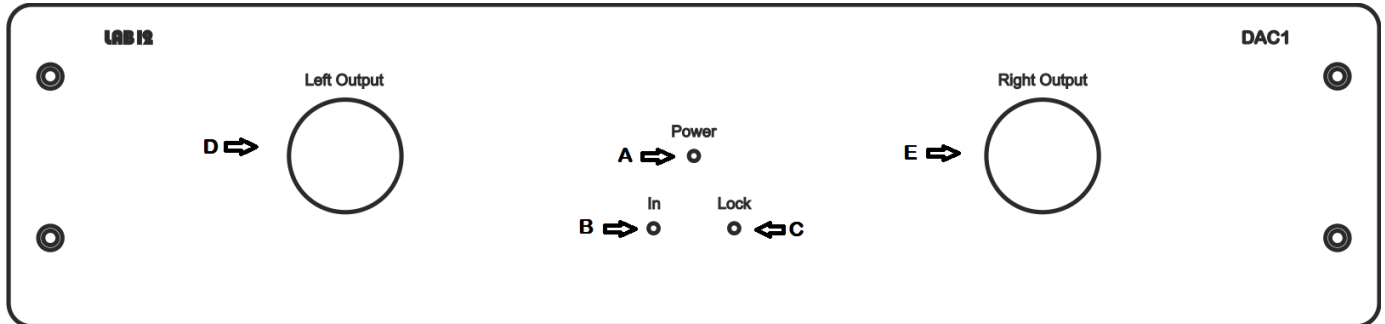
The LAB12 DAC1 should be removed from its box with care.

Features

- Coaxial spdif and USB2 input 24/96Khz
- 8xTDA1543 in Non Oversampling Mode (accurate matched)
- New Old Stock SQ Tube I/V analog output stage
- 6 Separate Regulated Power Supplies
- Jantzen Superior-z Coupling Capacitors
- Double chassis with dedicated vibrate isolation
- Gold plated RCA Teflon (input, output)
- Analog retro VU meters for output signal
- Color finish (Pearl white, Matt Black)

Installation & Placement

The **LAB12 DAC1 Special Edition** should be placed on a solid flat surface. You should avoid placing it near a heat source as this could compromise the DAC's performance and reliability. You should never place another component directly on top of this DAC. Take care of the finest luxury finish of front panel with a soft cloth.
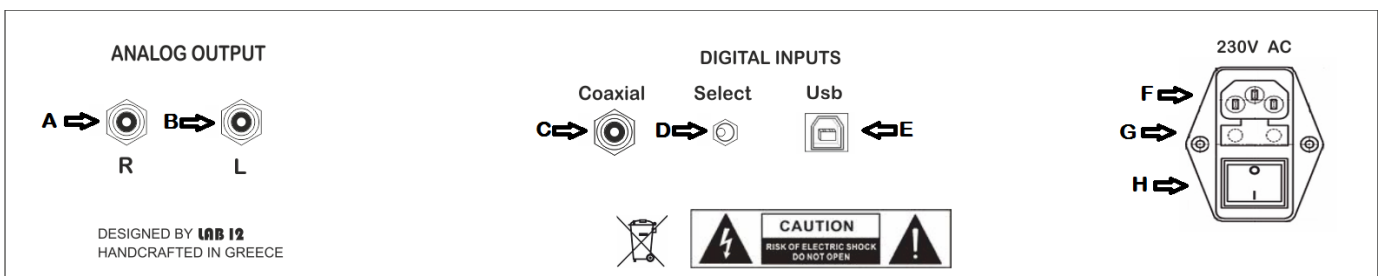
Front Panel Indicators

DAC1 Front panel

In front panel you will see three indication LEDs and two VU meters.
The center LED (A) indicates that the device is powered on.
The LEDs (B and C) indicates that the **DAC1 Special Edition** has successfully locked onto an input signal.
To the left and right of the 3 LEDs you see two retro analog VU meters (**D** and **E**). You can accurately monitor the output level of each channel on dB scale.

Rear Panel Connections

DAC1 Rear panel

In rear panel you will find the connection inputs and outputs.
On the left side is a pair of single-ended RCA analog audio output connectors (**A** and **B**).
In the middle of rear panel, you will also find the digital inputs. You can select **RCA coaxial 75 ohm spdif** (**C**) input or **USB2** (**E**) input with the selector switch (**D**). Both inputs can receive up to 96 Khz/24bit.
To the right side you will find an **IEC AC input** (**F**). Below IEC input is located the main fuse holder (G) and the **Power switch** (**H**).

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 can supply 230 to 240 Volts AC (50Hz). (Every **DAC1 Special Edition** is tuned and calibrated using the **LAB12 Knack Power Cable**)

Connect to your Preamplifier or Integrated Amplifier

Connect the analog output to an analog line level input to your Preamplifier or Integrated Amplifier. Make sure about the correct channel connections. We suggest to use a good quality interconnect cable pair.

Connect a Digital Output Source

Make sure that your Source has a spdif 75ohm digital output. Connect the digital interconnect cable from the source output to the coaxial input of **DAC1 Special Edition.** Select Coaxial with the selector switch in the rear panel of your DAC. Turn on your **DAC1 Special Edition** and then your digital source and activate the audio output on it. The led (B and **C**) will be turn on.
Use a high quality digital 75 ohm interconnect cable to ensure the best transfer of your digital signal.

Connect a PC

Always use a high quality audio grade USB cable to achieve ideal performance. Before connecting your PC to USB input of **DAC1 Special Edition** you have to install the Drivers of the device**.** You will find at www.lab12.gr . Follow the instructions and connect your dac when the installation is completed. After the installation and connection you need to select the USB output to your playback devices (maximum 96 Khz/24bit). Select the USB input with the selector switch on the back of your **DAC1 Special Edition**. If everything is ok led (B and **C)** will turn on.

For the safety of your equipment

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

! Please keep in mind that you have to turn on the DAC1 Special edition some seconds before turning on your amplifier and turn it off some seconds after turning off your amplifier.

Specifications

- DAC: 8x TDA1543
- Power : 230/240 Vac 50Hz
- Power consumption: 80 watt max (1A fused)
- Inputs: 1xSPDIF (Coaxial RCA), 1xUSB2
- Frequency response: 20Hz to 20 KHz +0dB/-1dB
- Rated output level: 2.2Volt RMS
- THD @1Khz (0dBfs): < 0.09%
- Dimension (WxHxD): 43cm x 11cm x 29cm
- Weight: 6 Kg

Warranty

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