

CAD

COMPUTER AUDIO DESIGN



Computer Audio Design 1543 MK II DAC User Manual

Version 2.3

CAD 1543 MKII DAC

Thank you for purchasing the 1543 MKII DAC and we hope you will enjoy it!

1) Power, inputs and outputs

The CAD 1543 MKII DAC has no mains power switch and the DAC is powered on when the mains power plug is connected.

The internal power supplies take time to sound their best. In our opinion there is a significant change in sound quality after the first two-three hours after being powered on and then again after 24 hours.

For this reason, the CAD 1543 MKII DAC is designed to be left plugged in at all times, and it will run warm. We recommend that if you are leaving for an extended holiday, or if an electrical storm occurs, you should unplug the unit from the mains supply.

The CAD 1543 MKII DAC has power conditioning circuitry built in. We recommend plugging the DAC directly into the wall outlet to start with. We do not recommend using an extension lead, outlet strip or most power conditioning products. In our opinion many power conditioning devices will reduce the sound quality of the 1543 MKII DAC. If you do try a power conditioning, please product pay attention to the flow, rhythm and dynamics of the music.

All audio components improve with time but the CAD 1543 MKII DAC is exceptional in this regard.

You will find a noticeable improvement over the first 200 hours and continued improvement during the first few weeks of use.

There is one USB input, one pair of RCA phono outputs and no switches.

There is a single 4mm banana socket on the rear panel that attaches directly to the signal ground on the printed circuit board that contains the DAC integrated circuits. This connection is for attaching a CAD Ground Control.

2) CAD 1543 MKII DAC and Computer Set-up

The CAD 1543 MKII DAC is "Plug & Play" when used with the CAD Audio Transport (CAT). Most Linux based servers (which is almost all servers on the market) already have the CAD driver installed and are typically "Plug & Play".

Melco, Innuos, Aurender, Auralic, SOtM, iFi and Fidata audio servers/streamers have all been tested by CAD and are "Plug & Play" with the 1543 MKII DAC.

The CAD 1543 MKII DAC requires a driver to be installed on any Windows computer before it can be used. Apple OSX is not supported after Yosemite.

Please install the driver before connecting the 1543 DAC to your computer.

Driver installation instructions and the appropriate driver can be downloaded from here:

<https://www.computeraudiodesign.com/drivers/>

Once the driver has been installed on your computer you can plug the 1543 MKII DAC into the mains power and connect a USB cable between the 1543 MKII DAC and your computer.

We have also suggested installation instructions on our website for recommended playback software for Windows computers, but our strong recommendation now days is to purchase an audio server/streamer. To properly setup a Windows computer for computer audio playback is a complex process... If the CAD Audio Transport (CAT) is not a possibility, CAD can recommend some excellent servers/streamers that we feel work well with the 1543 MKII DAC.

If the 1543 MKII DAC is connected to a pre-amplifier ensure that the volume control is turned to minimum before you connect or disconnect power to the DAC. If the 1543 MKII DAC is connected directly to a power amplifier, make sure the power amplifier is turned off before you connect or disconnect power to the 1543 MKII DAC. This will ensure no voltage spikes from the 1543 MKII DAC cause a loud **BANG!** from your speakers.

3) Placement

A proper support/stand is crucial for getting the best sound quality from the 1543 MKII DAC. Please work with your dealer to find an appropriate support.

The CAD 1543 MKII DAC must be placed in an open area with good ventilation. It is completely normal for the DAC to give off considerable heat.

When the DAC is first used the acrylic may give off a very slight odour. This will go away after about a week.

Do not use anything other than warm water and a lint-free cloth such as the microfiber E-cloth to clean your CAD 1543 MKII DAC. Window cleaning products and similar solvents will damage the finish of the acrylic case.

Please keep your packing carton. It is designed to properly protect your 1543 MKII DAC for shipment.

4) Specifications

2- Channel D/A Conversions:

- 44.1Khz, 48Khz, 88.2KHz & 96KHz.
- The CAD 1543 MKII DAC uses 16-bit resistor ladder DAC chips. This means that the DAC has a bit depth of 16 bits. It will play any bit depth, but only the 16 most significant bits will be used by the DAC integrated circuits.
- The CAD 1543 MKII DAC USB Interface will accept up to 32 bits

DAC

- 16 x TDA1543/N2

Input

- Single asynchronous, galvanically isolated USB

Output

- One pair of unbalanced low mass Tellurium Copper RCA interconnects

Output Level

- ~1.65Vrms Maximum (Can be modified for ~2.0Vrms Maximum on request)
- Output Impedance = 135 ohms at 1KHz

Power Supply

- 120VAC/60Hz or 220VAC/50Hz
- The transformers can be wired for a different voltage operation at the factory.
- Power Consumption: < 25 watts

Dimensions

- 430 mm x 85mm x 270mm - W x H x D
- 8.2Kg

4) Warning

- To prevent fire or shock hazard, do not expose the unit to rain or high moisture.
- To avoid electrical shock under no circumstances, open the case. The case is sealed at the factory and breaking this seal will void all warranties.
- Keep the unit in a well ventilated area. Do not install in a sealed cabinet. The 1543 MKII DAC gives off considerable heat.
- Keep out of the reach of children.

5) Warranty

Computer Audio Design Limited warrants the 1543 MKII DAC against defects in material and workmanship under normal use and service for two years from the date of first delivery to the original owner. Warranty is limited to the original owner only and is non-transferable.

If the CAD 1543 MKII DAC becomes defective in normal domestic use, due to a fault in materials or workmanship, Computer Audio Design Limited will at its discretion (and subject to the terms contained herein) either regulate, adjust, repair or replace it free of charge within a reasonable time after return of such product during the Warranty period to the original retailer. This Warranty is offered to the first purchaser only and covers the cost of parts and associated labour required to correct such defects in materials or workmanship arising and advised to your retailer during a period of Two (2) Years from the original date of purchase.

Computer Audio Design Limited will pay for all labour and parts during this two year period.

You must pay all shipping charges if it is necessary to return the product to your retailer. However, if the required repairs are covered by this Warranty, Computer Audio Design Limited will pay for the return shipping to any destination within the UK.

If you think that your product needs servicing, please contact your original retailer first. Many simple faults can be corrected by your retailer. If a return is necessary, your retailer will advise regarding packing the CAD 1543 MKII DAC. The CAD 1543 MKII DAC must be packed in its original packaging and returned to the retailer. Please do not return your product to Computer Audio Design Limited.

If you are returning the product, use a reputable carrier - do NOT post. Computer Audio Design Limited cannot accept responsibility for the unit while in transit to the retailer. Please ensure that your equipment is insured by you during any transit or shipment for repair.

If the CAD 1543 MKII DAC is returned in anything other than its original packing Computer Audio Design Limited will charge the customer £75 for new packing materials. Please keep your original carton!

Opening the product or modifying it in any way will void the warranty. If the serial number has been removed, defaced or modified the warranty will be void. For all warranty claims, a copy of the original invoice must accompany the product.

This Warranty does NOT cover:

- Damage to the CAD 1543 MKII DAC while in possession of a shipper, retailer, or consumer and not caused by defects in materials or workmanship.
- Damage or defects caused by abnormal or unreasonable use.
- Repairs or alterations of the CAD 1543 MKII DAC by a person other than Computer Audio Design Limited or its resellers.
- Accident, acts of nature, misuse, abuse, neglect or unauthorised product modification.
- Improper installation, removal or maintenance, or failure to follow instructions supplied with the CAD 1543 MKII DAC. In particular failure to provide the CAD 1543 MKII DAC with sufficient ventilation.

Computer Audio Design Limited sells the 1543 MKII DAC through authorized dealers or directly only. Purchasing any Computer Audio Design product through non-authorized dealers will automatically void the warranty.

6) Waste Electrical and Electronic Equipment (WEEE)

Computer Audio Design Limited has WEEE Producer Registration Number: WEE/BH3181SZ.

Each year millions of tons of electrical products are thrown away. A new EU directive called WEEE aims to recycle as much of this as possible, but by its nature it's often a difficult and dirty process and currently much of this product is sent overseas where rules and regulations are less stringent. Please dispose of your electrical appliances properly.

The CAD 1543 MKII DAC is CE approved and all materials used in the CAD 1543 MKII DAC are ROHS compliant.