

SUGDEN AUDIO

Masterclass DAC-4 Digital Converter

INSTRUCTION MANUAL

MAY 2024

Designed and manufactured in England by

J E Sugden & Co Ltd
Valley Works
Station Lane
HECKMONDWIKE
West Yorkshire
WF16 0NF
ENGLAND

BEFORE USE

This section must be read before connecting to the mains supply

MAINS CONNECTION INFORMATION

Your SUGDEN amplifier has been designed to comply with the domestic power and safety requirements that exist in your area. This amplifier can be powered by AC ONLY.

CHOOSE A SAFE AND SUITABLE LOCATION

Your amplifier is a class A design and therefore requires good ventilation

DO NOT: Expose to direct Sunlight

DO NOT: Position next to a heat source such as a radiator

DO NOT: Use in places with high humidity or poor ventilation

DO NOT: Subject to mechanical vibration

DO NOT: Place on an unstable or inclined surface

DO NOT: Stand other equipment on top of the amplifier

Never block the ventilation holes or stand directly on a carpet

GUARANTEE

To **activate your guarantee**, please complete the owner registration form on our website www.sugdenaudio.com/warranty-registration within 60 days of purchase. It is in your best interests to register your ownership to ensure you benefit fully from our warranty. Your details are not shared with any other company.



The DAC-4 is in conformity with the EMC directive and low-voltage directive.



UNPACKING

Your amplifier should reach you in a substantial protective carton. On unpacking please examine the unit for signs of prior use or damage. Check that all the front panel controls function mechanically. The following items should also be in the carton:-

- (1) AC power lead with pre-molded IEC straight connector and plug.

RECYCLING

This products packaging materials are recyclable and can be reused. The product and the accessories packed together are the applicable product to the WEEE directive except batteries. Please dispose of any material in accordance with your local recycling regulations. When discarding the unit, comply with your local rules and regulations. Batteries should never be thrown away or incinerated but disposed of in accordance with your local regulation concerning chemical waste.

INSTALLATION

The Masterclass DAC-4 converter is suitable for free standing on a shelf or in a cabinet. Do not stand the unit in direct sunlight or near a heat source. It is not recommended that the converter sits directly on top of a power amplifier.

ACCESSORIES SUPPLIED IN THE CARTON

- IEC straight connector with moulded mains plug. This should be suitable for your country. To check that the converter is the correct voltage, examine the carton, the assembly ticket attached to the rear of the unit and the legend on the rear of the unit.
- Guarantee card (please complete and return)

CONNECTING YOUR CONVERTER TO THE MAINS SUPPLY

Use the IEC power chord supplied, as this has been properly tested and CE approved to be used with your converter. The mains input socket is located at the rear of the unit and is clearly marked 'Mains power inlet & fuse'

CONNECTING YOUR CONVERTER TO A PRE-AMPLIFIER OR INTEGRATED AMPLIFIER

The Masterclass DAC-4 has one stereo pair of output phono sockets called analogue output. The phono sockets are standard type RCA connectors of high quality with Teflon inserts and gold plated contacts. It is advisable to make sure your interconnect leads have similar quality plugs that fit securely. The phono sockets are clearly marked right (red) and left (black or white) for identical connection to your amplifier line level input.

DIGITAL OUTPUT

In addition to the stereo analogue output there is a SPDIF coax digital output. The signal from this is native so it is the same frequency and bit rate as the selected digital input. This is live all the time and available when using the analogue outputs. The digital output passes through the special digital interface of the DAC-4 which re-clocks and de-jitter the original digital signal. This feature provides a very high quality digital output.

INPUT SELECTOR SWITCH

The Input selector switch is located in the centre of the front panel and controls which input is to be selected. The large knob has an indicator that corresponds with the input legend. The input selector switch is a precision component and requires the minimum of effort to rotate. Never force the switch as this could result in damage or loosening of the control knob. The DAC-4 circuit uses gold contact relays which cause the signal to cut off when moving between inputs. This suppresses noise such as clicks or pops.

REAR PANEL INPUTS AND OUTPUTS

1 x Mains input
1 x Analogue output (fixed)
1 x Digital output
3 x Coax SPDIF digital inputs
2 x Optical SPDIF Inputs
1 x USB type B input

POWER SWITCH

This is located on the front panel and turns the converter on and off by way of a push switch. When the switch is pushed in the converter is on and the lamp next to the power switch should illuminate.

DIGITAL LOCK

When a digital input source has been connected to the DAC-4 successfully the digital lock will illuminate. If this does not appear it is an indication that a digital signal is not available, or it is incompatible.

DIGITAL INPUTS

The DAC-4 has a selection of inputs and is compatible with the majority of digital source components currently available. The standard specification for all Coax and optical inputs is 16-24 bit word length and 32-96ks/s sample rates. The USB input has been designed to offer plug and play set up with most computer operating systems. It is ideal for listening to internet streaming services that provide lossless quality at 16 bit 44.1ks/s. To obtain the best sound quality from a computer we recommend introducing a dedicated high

quality USB to SPDIF converter. The use of such a device will provide future software upgrades and superior compatibility with dedicated music software for stored music files.

The DAC-4 has the ability to accept 24bit/192k word length. This however is not available without resetting the input transceiver and therefore unavailable when using a playlist of mixed resolution audio files. To reset the transceiver the DAC-4 must be disconnected from the mains supply and reconnected with the data source set to 24bit/192k output. Your computer or streamer may require rebooting before the DAC-4 will lock. If the transceiver does not lock to the correct frequency a breakup of sound may be experienced.

REPLACING FUSES

There are two internal power supply fuses and one mains fuse in the DAC-4; these are to protect the unit in case of a failure. If a fuse does require replacing, this is usually an indication that a fault exists. However, it is not always an indication that the DAC-4 is at fault so it is important to determine the cause before replacing any fuses. Please consult your dealer for advice. The mains input fuse is located in a draw within the IEC mains input socket. A spare fuse is also supplied in the draw.

- Always replace fuses with the same type and rating

LOOKING AFTER YOUR MASTERCLASS

The case construction of your Masterclass is made from durable traditional materials carefully chosen for their non-intrusive electrical properties. The front plate is solid machined aluminium plate that has been carefully anodised to a high finish. The legend is ink based and as with the rear panel, this should not be cleaned with any type of solvent. The rest of the case is powder coated and should only be cleaned with a soft slightly damp cloth.

MASTERCLASS DAC-4 Specification

Facilities	
Inputs	Three SPDIF coaxial, two SPDIF optical, One USB type B
	Mains IEC socket
Outputs	One RCA stereo analogue
	One digital coaxial
Front Panel Controls	Power switch, power lamp, input selector switch, digital
	Lock lamp
Specifications	
Output	2.15 Volts
Frequency Response	20Hz-20kHz +/- 1.5dB points
Signal to Noise	>80dB
Gross Weight (packed)	5kgs
Dimensions	90 x 250 x 330mm (hwd)
Digital Input	SPDIF 16-24 bit word length, with sample rates from
	32 to 96kHz
Power Consumption	12 Watts

* Up to 24/96 file compatibility.

The manufacturer reserves the right to alter specification without notice