

DAC 16

16BIT DIGITAL ANALOG CONVERTER

USER GUIDE

Congratulations on your new CONSONANCE!

Our products are based on a simple philosophy:

The component shall reproduce the original musical sound, purely and naturally.

The products are easy to operate and are manufactured according to the best quality principles.

All CONSONANCE products are created with acoustical instruments in a concert situation as point of reference. The music is reproduced exactly like the original and is limited only by the quality of the recording.

Our aim is to give you the best possible music experience!

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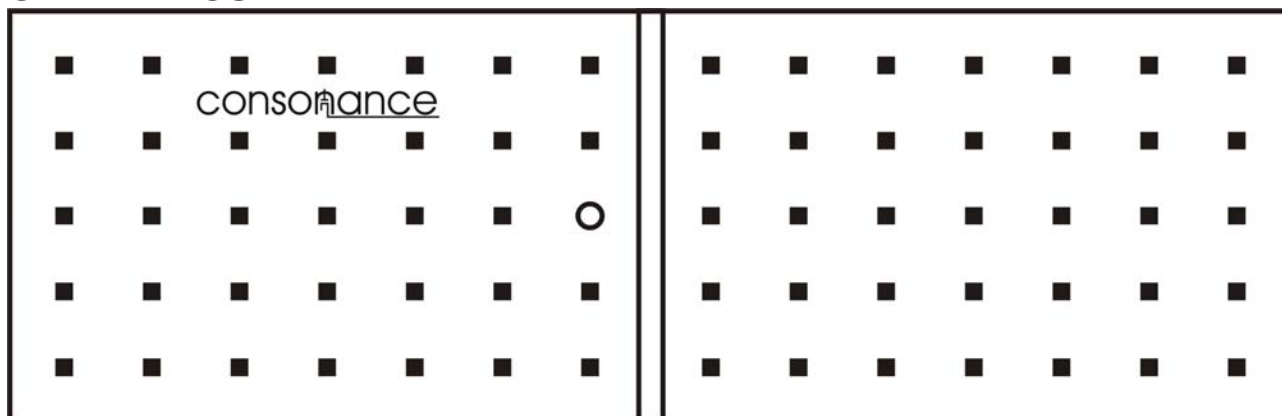
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SOUND ADVICE

The Consonance DAC16 is easy to connect and operate and requires no prior technical knowledge. However, to get the most out of the amplifier's superior sound and music quality, we have provided a brief description of the connections and use of the amplifier in order to provide a total music experience.

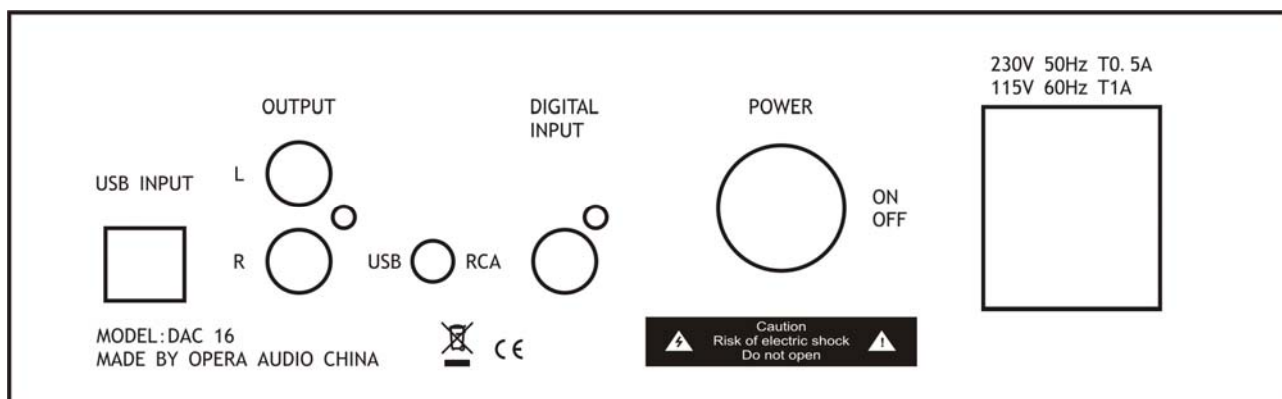
We recommend keeping this user guide for future reference.

GENERAL USE



The amplifier is switched on with the button. By pushing the same button one more time the power is switched off.

When power is switched on, the blue indicator will light.



From left to right the connectors are :

USB input, Power switch, Unbalanced outputs Phono/RCA right/left, Digital input select switch, Digital input Phono/RCA, AC Power connection 240V / 230V / 220V / 115V / 100V AC dependent on country.

USE & PLACEMENT

The Consonance DAC16 should be placed on a flat, hard surface for proper cooling. The amplifier performs best after being switched on for 1 hour for heating up. A certain space is required for air circulation above and below the amplifier. The amplifier must never be placed on a carpet or similar surface that obstructs air circulation through the component. Nor must it be covered while in use or placed on a narrow shelf or in another confined space.

CLEANING

The top cover and knobs are made of brushed and anodized aluminum, while the front panel is made of solid, powder coated aluminum. Fingerprints or stains on the front panel, knobs or top cover can be removed with a cloth moistened with warm water.

TECHNICAL SPECIFICATIONS

DAC resolution : 16bit TDA1543

0dBFS signal output : 2.35V RMS

Output Terminals : Gold plated RCA unbalanced

Input Terminals : Gold plated RCA unbalanced SPDIF input, USB input.

Frequency response : Less than +/- 0.5 dB deviation 20Hz-20kHz

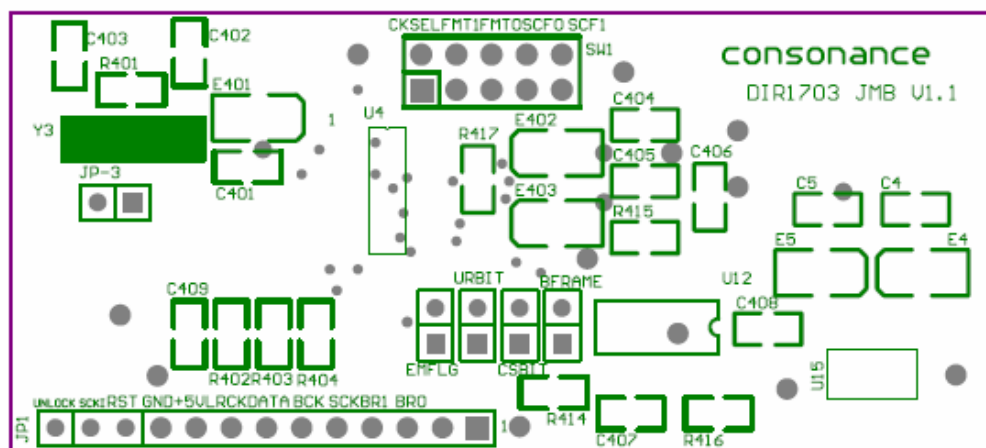
Phase response : Less than 5 degrees deviation 20Hz-20kHz

Signal-to-noise ratio : More than 100dB

Crosstalk : Less than -100dB

Distortion (RCA) : Less than 0.12 %

External and internal clock work mode selection



By JP-3 to choose to run with a jumper for the internal clock mode

Sampling of adjustable rate, through BFRAME, EMFLG, URBIT, CSBIT jumper cap adjustment (see Table 1)

Table 1. Sampling frequency adjustment method, Selectable Crystal Oscillator

SAMPLING RATE	128 fs	256fs	384fs	512fs	Jumper cap connections
32kHz	4.096 MHz	8.192MHz	12.288 MHz	16.384 MHz	BFRAME
44.1kHz	5.6448 MHz	11.2896 MHz	16.9344 MHz	22.5792 MHz	EMFLG
48kHz	6.144 MHz	12.288 MHz	18.432 MHz	24.576 MHz	open

88.2kHz	11.2896 MHz	22.5792 MHz	33.8688 MHz	45.1584 MHz	URBIT
96 kHz	12.288 MHz	24.576 MHz	36.864 MHz	49.152 MHz	CSBIT

The system clock options, through the SCF1, SCF0 jumper caps to choose(Specific see table 2)
Table 2. System Clock Selection (SCF1, SCF0 jumper to cap the adjustment form)

SCF1	SCF0	SYSTEM CLOCK
Unplugged	Unplugged	128 fs
Unplugged	Insert cap	256 fs
Insert cap	Unplugged	384 fs
Insert cap	Insert cap	512 fs

Audio Output Data Format Select, can jump the line cap to adjust through FMT1, FMT0(Specific see table 3).

Table 3. Audio Output Data Format Select

FMT1	FMT0	AUDIO DATA FORMAT
Unplugged	Unplugged	16 bit MSB first, Right justified
Unplugged	Insert cap	24 bit MSB first, Right justified
Insert cap	Unplugged	24 bit MSB first, Left justified
Insert cap	Insert cap	24 bit IIS

System Clock Operation Mode, CKSEL jumper cap through a selection, Jumper plug cap for the crystal clock mode, unplugged for PLL PLL mode.

NOTE & WARNING

Consonance products should only be opened or serviced by certified technicians. The devices contain electronic components that can cause severe electric shock. Work performed on Consonance products by unqualified personnel can cause serious damage and personal injury. Opening of the product by non-authorized personnel will void the guarantee. The products must not be exposed to rain or moisture.

Warranty

Opera audio guarantees each product manufactured by us to be free from defects in materials and workmanship under normal use. Our obligation under this warranty is limited to making good at our factory any part or parts thereof which shall, within 1 year after delivery to the original purchaser, be returned to us with transportation charges prepaid, and which an examination shall disclose to have been thus defective; this warranty being expressly in lieu of all other warranties expressed or implied and of all other obligations or liabilities on our part. This warranty shall not apply to any Opera audio product which shall have been repaired or altered outside of our factory in any way so as to affect its stability, nor which has been subject to misuse, negligence or accident. Warranties of the vacuum tubes are by the respective manufacturers, usually 90 days.

Please mail or e-mail the Registration Card to the address as follows:

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No.2 JianXianQiaoLu

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Tel: 86 10 64377091

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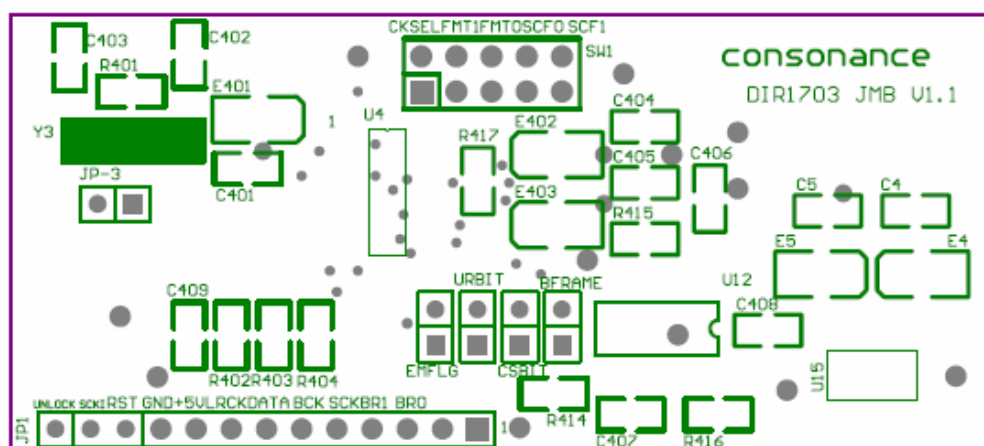
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Dealer

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