

# PRODUCT INFORMATION SHEET

## RED Reference MkIII CD Player

### Product Description

The latest update to our full sized CD player range now takes the Red Reference to Mk III status. This update makes a major technological change to the disc loading mechanism to incorporate a geared motor drive. The door will now open or close seamlessly at the touch of a button. Additionally the latest USB technology has been added to provide a true asynchronous 192KHz input allowing use of the internal DAC to playback high resolution music stored on a computer. As before the stunning looks and state of the art design remain. The ground breaking DAC technology gives the most accurate reproduction of compact disc or stored media that can be obtained. With internal 176.4KHz upsampling data transfer, selectable RAM buffer clock retiming and now 18000 tap length filtering the RED Reference Mk III earns its reference status in the Chord range.



Starting on the outside the RED features the Chord trademark design and is manufactured from solid aluminium giving a rigid support structure for the CD mechanism. The Mk III version keeps the lens in the CD dome giving a view of the loaded disc. The front panel design incorporates ball bearing push button control for the commonly used functions and a dual display showing CD status on one side and input, buffer and frequency information on the other. Uniquely the CD mechanism sits at 45 degrees to allow front access even if placed on a stand or in a rack. Access to the CD is at the touch of a button operating a highly geared motor controlled door. At the rear connections are made via gold plated phono or BNC coax, plastic optical fibre or balanced XLR style connections.

Internally the latest CD Pro 2 mechanism from Philips is re-clocked using a highly accurate crystal oscillator then the synchronised data is fed to the upsampling and filtering electronics. Here the 18,000 tap length WTA filter is used to minimise the transient timing errors and reconstruct the digital data to either 44.1, 88.2 or 176.4KHz sampling frequencies. This data is fed to the rear XLR and optical output connectors and also via a dual data bus to the digital to analogue conversion electronics. Based on the QBD 76 the digital signal is converted from 176.4KHz to analogue audio using 18,000 tap filtering and 76 bit digital signal processing core. This is followed by 64 bit 7th order noise shaping, 2048 times oversampling rates and improved pulse width modulated elements. This gives much better measured performance, better detail resolution with a smoother more focused sound quality. The DAC also features RAM buffer technology that sequentially takes in all the data, re-times, it then sends it out giving jitter free operation. Digital data from other sources can also be fed into the RED via the optical, AES balanced XLR or USB connections.

All of the above innovations are implemented in Field Programmable Gate Arrays that can be reprogrammed by simply changing the EPROM memory chip, thus future proofing is assured.

The RED Reference Mk III retains its status as a truly unique product. As a standalone CD player it is able to deliver the best reference CD playback. The addition of a 192KHz capable asynchronous USB input along with the more traditional optical and AES inputs also gives it the ability to act as both a CD transport and DAC for other computer and audio components making it completely versatile.

## Product Specification

HARMONIC DISTORTION	< -107 dB (1kHz, 24-Bit @ 44.1KHz Sample Frequency) < -115dB (100Hz, 24-Bit @ 44.1KHz Sample Frequency)
SIGNAL TO NOISE RATIO	> 120dB
CHANNEL SEPARATION	> 125dB @ 1KHz (> 100dB @ 22KHz)
DYNAMIC RANGE	122dB
SWITCHABLE DIGITAL INPUTS	1 x AES Balanced XLR Input 1 x Plastic Optical Fibre (TOSLink) 1 x USB B type Asynchronous 44KHz - 192KHz input
DIGITAL OUTPUTS	1 x BNC coax 1 x Plastic Optical Fibre (TOSLink) 2 x AES Balanced XLR (Can be configured for dual data 176.4KHz or 192KHz)
ANALOGUE OUTPUTS	2 X RCA Phono 2 X BALANCED XLR
SWITCHABLE RAM BUFFER	Position 1 – No Buffering Position 2 – Minimum Buffering Position 3 – Maximum Buffering
WORD CLOCK INPUT	44.1KHz Word Clock Synchronisation via BNC input
SAMPLE FREQUENCIES	32KHz – 192KHz
OUTPUT MAX	6V rms. Balanced. 3V rms. unbalanced
OUTPUT IMPEDANCE	75Ω (short circuit protected)
POWER SUPPLY	Universal Input High Frequency Supply operates from 65V to 265V AC
DIMENSIONS IN MM	420 x 140 x 325mm (Width x Height x Depth)
WEIGHT	14Kg



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