

#### 825 High Definition Disc Player

The 825 is an audiophile CD player with a wide array of digital interface options. In view of the sophisticated technology inside the case, the 825 may be considered an advanced DAC with a CD drive added. Whichever way you look at it, the 825 is an extremely versatile music machine.

#### High quality metal drawer & CD-optimized servo system

The stand-out feature of the 825 is its all-metal drawer. The drive itself is based on a DVD laser assembly with a long and successful track record. The servo board employs a modified DVD servo optimized for CD use only. The servo's most important technical design feature is the memory buffering of the data, which is responsible for the high tracking accuracy and excellent data quality.

# USB HD-audio interface with 24 bit/192 kHz working in "asynchronous mode"

The 825 High Definition Disc Player is the world's first CD player to be equipped with a USB HD-audio interface working in "asynchronous mode" that accepts high quality music data up to 24-bit and 192 kHz. The player handles all customary data formats, i.e. 44.1 kHz / 48 kHz / 88.2 kHz / 96 kHz / 176.4 kHz / 192 kHz and is supported by current operating systems (Mac OS X from 10.6.4 and Windows XP/ Vista/7).

# Intelligent signal conditioning and input data standardization

Digital data arriving at the inputs is processed before it is passed to the actual D/A converter. In "auto mode" the jitter performance of data is standardized (<50ps rms), and converted to the default 24-bit/96 kHz internal sample rate. This is achieved by the use of an innovative input receiver with digital PLL and data buffer and a sample rate converter (SRC) that is normally found only in the studio sector.



A microcontroller monitors the sample rate of data at the input and ensures that only data below 24/96 is submitted for upsampling. Data with 24/96 or higher is passed "native" without any further processing. The standardized data is made available at the digital output of the 825 as well as at the input of the DAC.

## State-of-the-art digital signal processing and D/A conversion

The digital to analog converter in the 825 High Definition Disc Player is galvanically isolated to form a "component within a component". It has its own completely separate power supply with its own mains transformer windings. To maximize resolution, the digital signal is processed by a Blackfin DSP. The code used is a Lindemann proprietary further development of the well-known Anagram Sonic 2. Not only does the system accommodate the upstream mono mode DACs. In addition the original linear phase filter has been replaced with a much better sounding minimum phase filter with "apodizing behaviour" – one of this player's main design features. This type of filter effectively suppresses time domain artefacts (including those present in the recording) by replacing the original impulse response with a new one with virtually no pre-ringing.

#### Sophisticated analog output stage

The single-stage, ultra fast output stage uses current feedback to achieve virtually perfect time domain behaviour and an outstanding musical performance. No op amps are used anywhere in the design.

## Players · Amplifiers · Speakers · Cables

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# LINDEMANN.



Measuring conditions: 25°C, 230 V mains voltage, operation with 800 Universal Power Supply. Measuring equipment: Audio Precision System Two Cascade SYS 2522. Lindemann audiotechnik GmbH, Stand: 13/05/2011 / 5:24:44 p.m.

Formats supported	CD, CD-R, CD-RW, Hybrid-SACD, HDCD	USB audio port
Optical pickup	DVD laser system with coated glass lens	
Digital to analog converter	Dual differential mono mode, 24 bit/ 384 kHz	Low-level linearity
Master clock accuracy	<i>i</i> < 2.5 ps rms	Dimensions
Frequency response	1 Hz–22 kHz (-3 dB)	
Dynamic range	> 140 dB (digital zero, AES 17)	Weight
Signal to noise ratio	> 114 dB (A-weighted, bandwidth 22 kHz)	Power supply
	> 82 dB (A-weighted, bandwidth 500 kHz)	Power consumption
THD	< 0.003 % (1 kHz, 0 dBFS, AES 17) < 0.0003 % (1kHz, -10 dBFS, AES17)	Inputs
Output voltage (0 dB FS)	2.8 V balanced 1.4 V unbalanced	Outputs
Output impedance	44 Ω balanced 22 Ω unbalanced	
Digital inputs (S/PDIF)	Input voltage range $0.5-1.0 \text{ V pp}$ Impedance 75 $\Omega$ Bit resolution 16/24 bit Sample rate 44.1–192 kHz	Other connections
Digital outputs (S/PDIF)	Output voltage 1.0 V pp Impedance 75 $\Omega$ Bit resolution 16/24 bit Sample rate 44.1–192 kHz	

USB audio port	USB audio class 2 (asynchronous mode) Bit resolution 16/24 bit Sample rate 44.1–192 kHz	
Low-level linearity	< 0.5 dB @ -90 dBFS	
Dimensions	440 x 135 x 345 mm 17.32 x 5.31 x 13.58 inch (W x H x D incl. Feet)	
Weight	10.2 kg	
Power supply	100 V, 120 V, 230 V (50-60 Hz) factory set for destination country	
Power consumption	Standby 1 W, operation 18 W max.	
Inputs	<ul> <li>(2) S/PDIF digital inputs (RCA)</li> <li>(1) S/PDIF digital input (TOSLINK)</li> <li>(1) USB audio port</li> <li>(1) S/PDIF digital input (RCA) / DSP-loop</li> </ul>	
Outputs	<ol> <li>(1) Pair analog outputs (XLR)</li> <li>(1) Pair analog outputs (RCA)</li> <li>(1) S/PDIF digital output (RCA)</li> <li>(1) S/PDIF digital output (TOSLINK)</li> </ol>	
Other connections	(1) DC supply (2) SYSCOM (RJ45)	
Accessories included	<ol> <li>(1) 825 High Definition Disc Player</li> <li>(1) 800 Universal Power Supply</li> <li>(1) Standard power cord, 1.5 m</li> <li>(1) Standard USB cable, 1m</li> <li>(1) SYSCOM cable, 1m</li> <li>(1) 800 System remote-control</li> </ol>	

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