

# STEREO STEREO

MAGAZIN FÜR HIFI • HIGH END • MUSIK

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## Changing of the Guard



**The new 825 CD player takes over from Lindemann's previously very successful SACD player, waves goodbye to SACD and opens the door to music on the PC. This changing of the guard applies to the entire line of disc players; it is also accompanied by an increase in sound quality.**

**F**irst the bad news: Lindemann's successful SACD players, the 822 and 820S, are now history. Which is a shame, as the Bavarian company's state-of-the-art, 9,900 euro SACD player achieved a prominent position in the market in both its original, and especially in its "S" update version, and both models have

been an integral part of our testing program for some years.

But let's look on the bright side, because with the 825, Norbert Lindemann has now opened a brand new chapter. With the predecessor version, he could have been said to be knee-deep in digital technology, now, with this new model, he's in

it up to his neck. The gifted designer has gained so much insight and experience in the intervening years that he has been able to further refine his design concept and judiciously incorporate new components (see inset).

The 825 has stayed true to the spirit of the 820S in terms of its appearance and

many of its features. The new product retains the familiar blue display and does not strike you as being different until you examine details such as the narrow silver front edge on the metal drawer. Like its predecessor, the 825 provides digital inputs for connecting other components, and for the first time, a USB interface for a computer. The latest ICs provide a bandwidth of up to 192 kHz/24-bit with very low jitter.

**The 825 abandons SACD**

Unlike the old 820S, the 825 has no adjustable output; it cannot therefore be connected directly to a power amp and used as a preamplifier. More importantly, it no longer has an SACD option. Although the manufacturer began with a different de-



The generously equipped connector panel includes RCA and XLR analog outputs, four digital inputs plus USB for external components, and coax and optical digital outputs

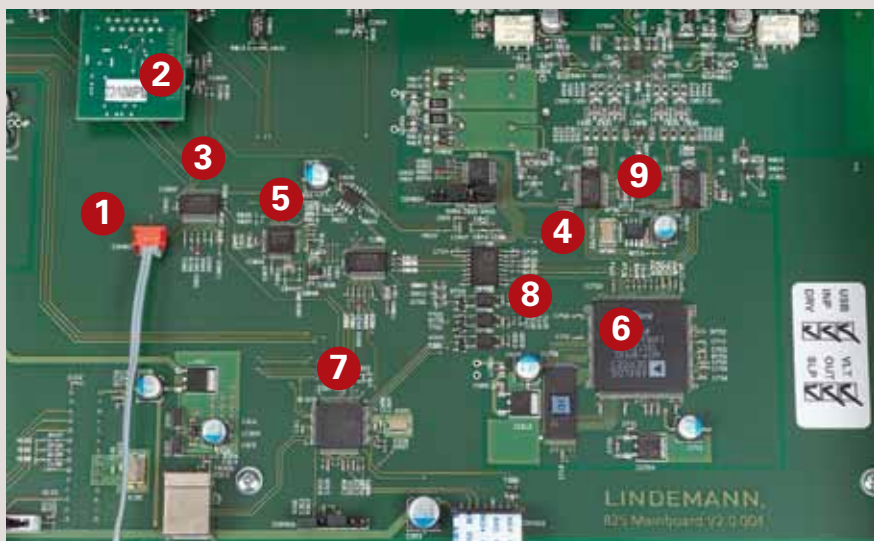
sign concept for this player, it soon became clear that the new model sounded better with CDs than the 820S sounded with SACDs. A decision was therefore taken to dispense with the SACD option. Cost also played a part in the decision. Indeed, thanks to the lower cost of the CD transport compared with the previous SACD version, the 825 retails for less.

The 820S contained two separate power supplies for the analog stages and the transport and control circuitry (with the transport contained in the player itself). During development of the new model, Lindemann decided to relocate all the transformers outside the main case, on the grounds that it is impossible to completely eliminate every bit of interference they generate. The 825 is powered by an out-board energy pack that delivers two times 12 volts.

The menu gives you access to a range of parameters, from the brightness of the display, to the designation of the digital inputs, to the configuration of the upsampling. The latter is set to Auto by default. Incoming data of less than 96kHz/24-bit is upsampled to this format. If you prefer to keep your data in its original format, you can choose the "Native" option. Whatever option you select, a Wolfson SP/DIF receiver reduces the timing jitter of input data to an amazing 50 picoseconds.

**TECH TALK**  
**CD transport:**  
 The transport in the 825 is based on a well proven Sony DVD drive known for its extreme reliability, noise immunity and superb styling.

**FROM BITS TO MUSIC: THIS IS HOW LINDEMANN'S 825 WORKS**



Whether the digital data stream is supplied from the USB controller 1 or from the integrated transport 2 is of no concern to the Wolfson input receiver 3. It synchronizes the signal precisely via the master clock 4 that provides the timing reference for the 825. The Burr-Brown sample rate converter 5 changes lower resolution digital formats to a standard 24-bit/96kHz. This is a necessary precondition for the subsequent signal chain. An important part of the digital signal processing is the "minimum phase filter with apodizing behavior" built into the respected Sonic 2 system from Swiss specialist Anagram Technologies, which is also found in other players. Its highly complex DSP function is built into an integrated circuit 6. Unlike more popular filter types that have a steep slope above the half sampling rate, this filter acts earlier, and although it also slightly restricts

the theoretical bandwidth, in practice it delivers a more defined transient response. In contrast to the usual "linear phase" characteristic with its prominent pre-pulse and post-pulse ringing, the Lindemann attempts to reproduce transients without pre-pulse and with aperiodic ringing, such as you see on a good tweeter. In listening sessions, this was recognized as optimal. The apodizing, which starts at 38 rather than 48kHz (half the value of the 96kHz upsampling), is intended to counteract the loss in sound quality that can result from cascading normal "brick wall" filtering in the recording, during mastering and then during playback. A microcontroller 7 takes care of the complex task of controlling all the processes. Opto couplers and an iCoupler 8 maintain the separation of signal processing and conversion, which is carried out by fully balanced Wolfson DACs 9.

Technology freaks will be astonished with the 825. But you certainly don't need to know about the technology. In use, the "Super DAC with CD transport", as Norbert Lindemann likes to call his latest creation, works just as smoothly as any other good player.

We have been following the efforts of the Bavarian company since the early days of the CD1 and were keen to discover what progress they had made this time round. We therefore arranged for a shoot-out between the 825 and the 820S. Both players were placed in the same rack and plugged into the same power strip using identical, phase correct cables. We very carefully corrected the level difference of around four decibels between the two players when changing over. The 825's reduced output is due to its brand new high-speed output components.

The transport is secured in a separate housing in the upper section of the player. It rests on a sturdy shelf with a damping layer that reliably absorbs vibration

Can the cheaper but more advanced newcomer really outperform its sophisticated predecessor? We were sceptical too. But it can! The name "High Definition CD Player" that Lindemann attaches to the 825 is not an overstatement. Its music is more expansive, more fluid, and in every respect more subtle and more finely shaded – dynamically, tonally and spatially. This is all the more surprising, as the older model always excelled in those disciplines.

### Digital artefacts reduced

Despite the enviable reputation of the older model, the 825 is quicker out of the starting blocks, more nimble, open and effortless. In comparison, even the rather exuberant 820S seems to have slightly less rhythm and pace. It also has an advantage in terms of tonal separation. Equally important, the 825 sounds more real and more credible in the midrange, while its predecessor betrays a degree of uncertainty and edginess. **Digital artefacts** certainly seem to have been effectively reduced in the new model. Its airy and very open high frequency performance is more finely textured, blacker and silkier than that of the 820S. You can hear this most clearly in the more gentle, crisper reproduction of sibilants.

We checked the manufacturer's claim and can confirm that the 825 does indeed sound better with CDs than the 820S



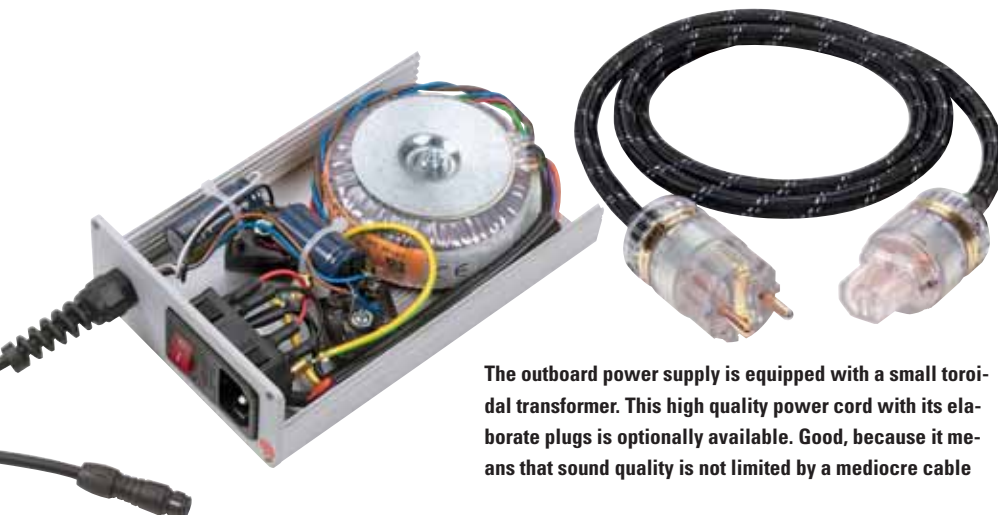
sounded with SACDs. I would describe the difference like this. When listening to the SACD layer of audiophile hybrid discs from Chesky and Reference Recordings, the 820S seemed a little more colourful and solid but at the same time slightly overblown, while the 825 playing the disc's CD layer was marginally leaner but gave an impression of greater neutrality. At no time did the 825 sound less detailed playing perfectly normal CDs than playing the high resolution SACD versions. Otherwise, it would not have been able to match its large, airy soundstage.

#### TECHTALK

**Digital artefacts:** Interference - heard as rough highs or glassy mids - arising from the type and quality of signal processing.

Even top reference players shrink the soundstage of "Missa Criolla" by Ariel Ramirez. But with Lindemann's new player, it was so wide, tall and deep that it was a pleasure to listen to. Very few components are capable of this. Certainly not at this price. Although the 825 is not cheap, it offers real value for money. It is a highly capable product that maintains and enhances the already excellent reputation of Lindemann disc players.

Matthias Böde



The outboard power supply is equipped with a small toroidal transformer. This high quality power cord with its elaborate plugs is optionally available. Good, because it means that sound quality is not limited by a mediocre cable

## LINDEMANN 825



Dimensions: 44x14x35cm WxHxD

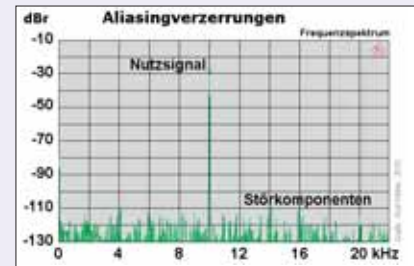
Warranty: 3 years

Sales Lindemann, Tel.: +49 (0)89/8913679-0

www.lindemann-audio.com

State-of-the-art technology, a future-proof feature set and a sound that is superbly natural in all respects, make the 825 a star. Who needs SACD now?

### MEASUREMENTS



Frequency responses	linear, no pre-emphasis
Signal-to-noise ratio Digital 0	103 dB
Quantization noise (400 Hz/0 dB)	96 dB
THD (400 Hz/-60 dB)	0,25 %
Aliasing distortion (-30 dB)	0,012%
Converter non-linearity to -90 dB	0,1 dB
Tracking accuracy	very good
Shock resistance	very good
Square wave / impulse response	good/good
Loading time	15 sec
Output impedance at 1kHz	22 Ω
Output voltage at 0 dB	1,4 V
Power consumption	
Off   Standby   Idle	0   2   14 Watt

**LAB COMMENT:** The quiet transport displayed high immunity from shock and vibration, and even coped with test disc gaps of 3mm. All other lab measurements were similarly excellent. Of particular note was the low output impedance, and consequently very stable, output stage.



### FEATURES

A pair of RCA phono and XLR analog outputs, two digital outputs (coaxial, optical), four digital inputs (2 x coaxial, optical, ISB) plus processor loop option, dimmable and switchable display, remote control, the usual repeat and display functions.

### STEREO-TEST

SOUND QUALITY **95%**

PRICE/PERFORMANCE



**EXCELLENT**