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Das Magazin für digitalen Musikgenuss

Review 2013

CEC CD Belt Drive TL 3N
CEC DA Converter DA 3N

„CEC combines the best drive system, an excellent transfer concept and precise signal processing to create a CD drive/converter package with superior sound quality which shows the capacity of the CD in a very impressive manner“. *Review einsnull 2013 | C. Rechenbach*

more information: **www.cec-international.com**

belts and steering chains

Review: einsnull 2013 | C. Rechenbach

Peripherie:

- pre amp: Lindemann 858
- control amp: Lindemann 830
- speaker: Klang + Ton „Nada“ German Physiks Carbon

Computers and CDs will still be used in parallel in households for many years to come, that much is certainly true. The audiophile looks for natural solutions which are have a satisfactory sound quality and at the same time are in some way special. The traditional company CEC has now given me something which combines these two elements in a reasonably thorough manner.

Listen to:

- **Blank & Jones**
  Relax Jazzed
  (FLAC, 44,1 kHz, 16 Bit
  & Compact Disc)
- **Rodrigo y Gabriela**
  Live In Japan
  (FLAC, 44,1 kHz, 16 Bit
  & Compact Disc)
- **Biber Herrmann**
  Love & Good Reasons
  (FLAC, 96 kHz, 24 Bit
  & Compact Disc)
- **Dianna Krall**
  Glad Rag Doll
  (FLAC, 96 kHz, 24 Bit
  & Compact Disc)
- **Fleetwood Mac**
  Rumours
  (FLAC, 96 kHz, 24 Bit
  & Compact Disc)
- **Beth Hart & Joe Bonamassa**
  Don't Explain
  (FLAC, 44,1 kHz, 16 Bit
  & Compact Disc)

CEC has a long and glorious company history. The company has effectively been in operation since the start of the Hi-Fi business, making it one of the old schoolers in this field. The company was founded in 1954, and at the time was the first company ever to build record players in Japan. Over the years, they were able to grow considerably and style themselves into a serious manufacturer and OEM supplier for the greats of the Hi-Fi world. (e.g. Grundig, Marantz, Teac, Sony, Sanyo, Toshiba, Mitsubishi, Alpine, Kenwood, Sharp etc) When CDs first came out in the early 1980s, CEC got on board very early and let the skills that they had developed in the manufacture of record players influence how they worked on belt-driven devices. This has made the Japanese company famous to this day. Then things went a little quiet at CEC until recently. I don‘t want to stick my nose into other people‘s business and look into what happened. What is definitely true is that they‘re back, and back with drums, trumpets and lots of new devices. I‘ve had two of them as equipment in our listening room for a long time, an extensive article about the excellent items was very much called for.

Many visitors to our listening room thought that we had a CD player with a nice little amplifier on the rack. Nope, this duo is a genuine, pure CD-belt drive transport/DA converter. It looks very subtle, but convinces listeners with its really excellent processing. CEC can do other things too, and provides genuine sculptures of playback devices in the really high price categories such as the TL0X. The series to which the transport/converter combination here belongs is kept somewhat more subtle. A toploader is of course always an eye-catcher, however, so it‘s certain to catch interested glances from visitors with its subtle optical presentation.

Drive:

Almost all of the CD players we are familiar with have a direct drive mechanism in which the motor and the CD intake are rigidly coupled to one another. This has proven successful, but there are of course also always ways to implement the drive differently and above all better. In the past, CEC made a name for itself successfully implementing belt-driven transports. In these, the CD lies on a precision bearing that looks like a miniaturised version of a record player which is driven by belts. This even has real advantages if you do it right. On the one hand, you keep the vibration from the motor away from the CD, and on the other the immediate surroundings can be kept as far away as possible from the continuously changing magnetic field. And since a drive of this type is not quite extravagant enough, CEC has added another one on top and even provided the positioning of the laser with a drive of this type. That‘s what I call thorough. The powerful puck which weighs 330 grams and pushes the CD onto the plate also generates the necessary momentum to support a stable and constant rotational movement. Despite the considerable burden which needs to be leveraged here, the transport moves upwards very quickly and behaves just like a classic direct drive, so you don‘t have to make any compromises in this area. The great art is in the fact that rotation speeds which fortunately are continually changing are got precisely right. This means that although no D/A converter is built in, the printed circuit board is already really full. A considerable amount of this is taken up by the control electronics for the transport, to which a particular amount of attention had to be dedicated in this instance. The electricity supply has also become quite elaborate thanks to the really high weight of both the converter and the transport. This means that the electricity stability of both devices is also reliable, as well as advantageous from a sound quality perspective since it has been established that digital electronics react in a highly sensitive manner to vibrations, which almost never occur here due to the sheer mass. This is very definitely the highest work of CD transport art. For compact discs, this really is the best thing you can do, do them, and something is also provided for those who come from the age of computer audio: it has a sampling frequency of up to 192 kHz via the in-built USB socket.

All conceivable digital inputs are available, and the TL3N can be connected via CEC superlink.

The adaptive interface works with out drivers, enabling an absolutelfool-proof connection to any computer without a driver needing to be installed. The Tenor receiver is immediately ready to play under any operating system when it identifies a computer input.

For the D/A converter, they really pulled out all of the stops. The hyperstream 9008 by ESS which I really like deals with this type, and this chip is well known for having an absolutely top quality of sound once you manage to tame the beast. You can take advantage of its volume control right away and handle the signal level in this way. This also works brilliantly in practice. I always shied away from digital volume control, but the ESS hyperstream shows that this is a completely practicable way. In this way, you have a complete digital pre-amplified in which the signal is only pushed shortly before the end in analogue form - something which I find very good. You can also do considerably more with the converter than just attaching a computer and an CD transport. The DAC also has a large number of sockets for various inputs such as satellite receivers, flat screen televisions and streaming clients. Behind this you will find an optical and electrical S/PDIF connection, and AES/EBU is also available. Anyone who wants to play it on the safe side can use an external clock for the signal timer and connect it via BNC so the precise connection of the two components is complete.

The analogue connection can be chosen as needed. XLR and cinch connections are designed in both a fixed and a variable manner so that both the power amplifier directly and the amplifier have exactly the connection that they need. You get dizzy just thinking about how long the list of devices which can be connected to the DAC is – this converter can‘t be beaten in terms of its versatility.

The preferred type of connection for the two devices is of course CEC‘s own communication line, christened „superlink“. CEC previously achieved this by means of an RS32 interface. Now four cables are needed for this, with two of them carrying the clock information for each of the left and right channels, one carrying the pure data and the final cable separating the bit clock from all of the others. The master clock, however, is generated in the DAC or, if it is necessary to achieve sound quality that is a cut above, by an external clock generator. The transfer is done by means of a BNC cable, and impedance adjustment is carried out, which is absolutely essential in digital data. Just ask a sound engineer. This high level of effort means that CEC can claim to transfer a signal completely free from interference, motor noises and other disturbances. The DAC will be grateful for this. The result of this complicated signal chain is an exceptionally stable, well-defined playback which is distinguished by unique events and is simply internally consistent. The advantage of the superlink connection can clearly be recognised.

As a pure mode of transport, the TL 3N has exclusively digital outputs.

Connected in this way, the combi plays in considerably more intimate, catchier and cleaner phases than via S/PDIF, so you can work out your favourite in seconds.
Of course I've had some fun ripping a CD to play it back later both on the transport and on a computer. In principle, it is also possible to attribute the aforementioned sound character to the USB connection, although I actually have a tendency to favour the Drive from a pure sound quality perspective. It's great that thanks to the USB you're able to play high resolution material back, but if you can do without a large number of CDs and the comfort of a computer sound system, you get simply more pressure, a sense of more directness and a somewhat tighter bassline if you put the CDs in the CEC belt drive transport rather than ripping them and playing them on the computer.

Christian Rechenbach
Review einsnull | 2013

more Information:
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CEC TL 3N

Drive System	Double Belt Drive // Spindle & Pick-up
Playable Discs	Audio CDs & Finalized CD-R/RWs
Power Supply	AC 100V/120V/230V/ 50-60Hz
CD Stabilizer	Brass
Digital Input	Word Clock BNC x 1: 44,1kHz
Digital Output	AES/EBU(Balanced XLR; HOT=2) x1: 2.5Vp-p/110Ω
	COAXIAL(SPDIF) x1: 0.5Vp-p/75Ω
	TOS x1: -21 ~ -15dBm EIAJ
	SUPERLINKx1(BNCx4): 2.5Vp-p/75Ω
Dimensions	435(W) x 296(D) x 100(H) mm
Weight	10 kg
Color	Silver and Black

CEC DA 3N

DAC	ES9008 | Highest Performance 8-channel Audio DAC
Power Supply	AC 100V/120V/230V/ 50-60Hz
Analog Outputs	balance fixed XLR x1, variable XLR x1 as PRE-AMP
	unbalanced fixed RCA x1, variable RCA x1
	Headphone 6,3mm x1
Digital Inputs	COAXIAL(SPDIF) x1: 0.5Vp-p/75Ω)
	OPTICAL x3: (mini on front x1 & TOS on rear x2
	USB 2.0 x2: (mini B on front x1 & B on rear x1))
	SUPERLINK x2: (BNCx4 x1 & D-Sub 9P x1)
	AES/EBU (Balanced XLR; HOT=2) x1
	Master Clock x1: (BNC 44,1kHz)
Dimensions	435(W) x 296(D) x 100(H) mm
Weight	9 kg // Color: Silver and Black

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CEC The Drive | since 1954

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