

# FIDELITY

international

# 02

english



02

03/2016 • August/September/October 2016

The German Voice of Premium Audio... a free online magazine



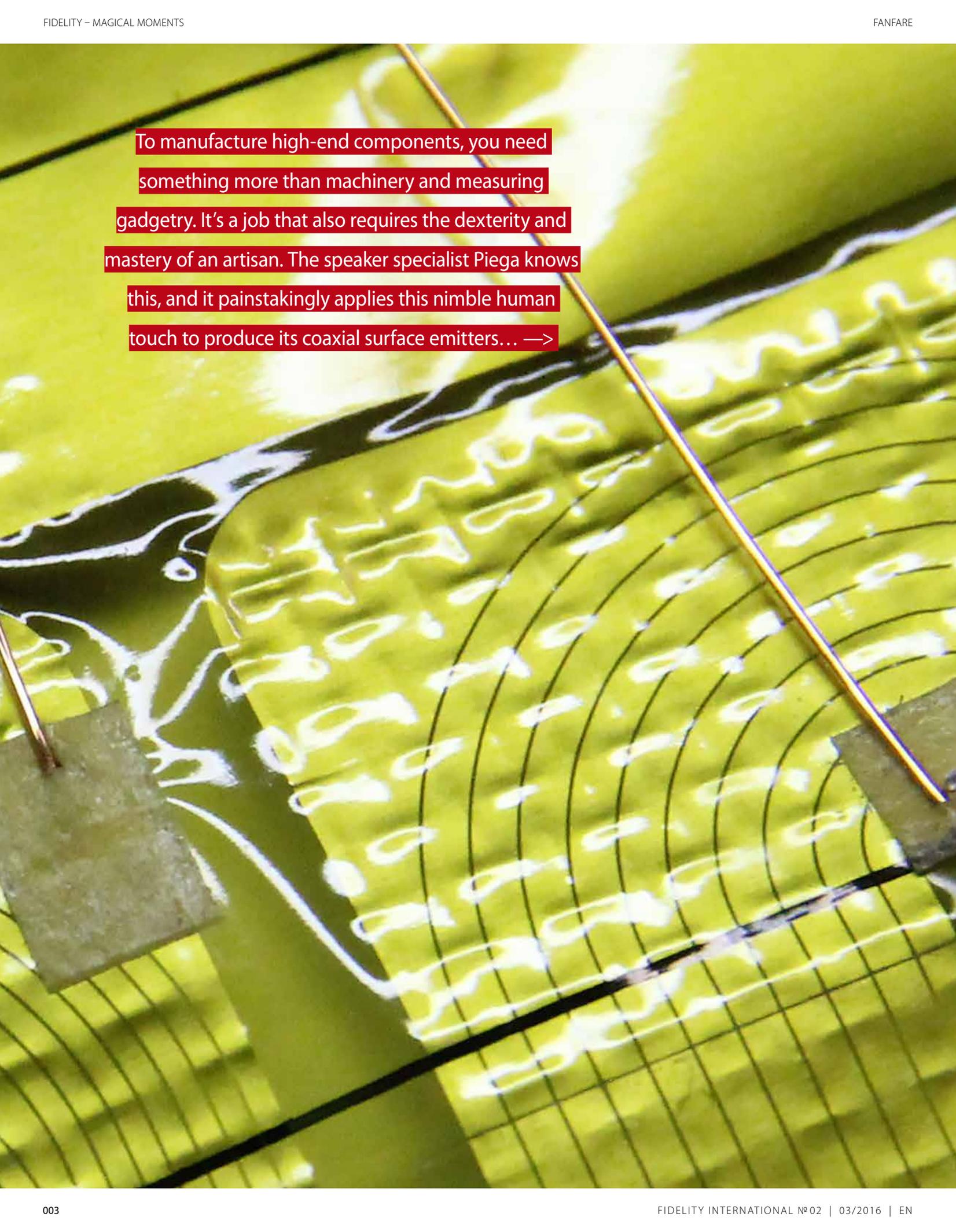
EINSTEIN



*Burmester*

## Phase 3 Loftstyle

*PHASE 3 is an extension to the traditional Burmester product lines, joining ultimate demands on sound quality with musical culture and modern lifestyle in a perfect blend. The designoriented concept incarnates both the timelessness of the Bauhaus style steel tube furniture and the industrial charm of modern lofts.*



To manufacture high-end components, you need something more than machinery and measuring gadgetry. It's a job that also requires the dexterity and mastery of an artisan. The speaker specialist Piega knows this, and it painstakingly applies this nimble human touch to produce its coaxial surface emitters... —>



—> ...The company has just two experts who have what it takes to optimally stretch the highly sensitive and razor-thin foil, to perfectly lay the delicate cables and to fine-tune the completed drivers. It is work that bears all of the hallmarks of crafting musical instruments.



Cai Brockmann

# DEAR READERS,

The time has finally come: Following the sensational premiere of FIDELITY international, we've now taken it up a notch with a second international edition richly seasoned with the very finest in high end audio.

Two digital players from C.E.C. and Luxman serve as proof that the "good old CD" is anything but obsolete. On the contrary: The unbelievable device from C.E.C. with its belt drive and sub-chassis can even hold its own against the largest indestructible analog machines. It's almost a shame that you can't mount the new TT5 tangential tone arm from Clearaudio on top...

Especially worth mentioning among the panorama of prospects? The large tube combination from Einstein Audio (OTL!) that sticks to the essentials, the benchmark in music servers from X-ODOS, and three freshly polished design classics from T+A. And if you want to know where you can bump with the best of the best, we've got just

three syllables for you: Shambala! The perfectionists from Subbase Audio are truly in a class of their own. Incidentally, the same is true for a certain Peter Qvortrup. In an exclusive feature, he gives us a peek behind the scenes of Audio Note UK. What ties together one of the most fascinating figures in recent audio history and his world class tube manufacture? Start flipping through the pages of this issue of FIDELITY international and dive into the best high-end magazine in the world, right at your fingertips on your tablet.

FIDELITY international—The German Voice of Premium Audio.

Best regards,

# Armonia

So klangvoll wie ihr Name  
Die High End Kabelinnovation von HMS



**NEU**

**i-fidelity.net**  
Eine erste Pressestimme:  
„HMS schafft mit dem Armonia eine energetische und vitale Verbindung.  
Große Klasse wenn Kunst und Können in dieser Form aufeinander treffen und die Ohren so außergewöhnlich gut verwöhnt werden“  
O. Sturm



*Armonia*  
Interconnect RCA/Cinch



*Armonia*  
Interconnect sym. XLR

## Armonia Ein gelungener Technologietransfer.

Die Lautsprecher und Interconnectkabel dieser Neuentwicklung profitieren von den Konstruktionsmerkmalen und hiermit erzielten klanglichen Eigenschaften unserer Top-Serie Gran Finale Jubilee.  
Minimalste Verluste und höchste Einstreufestigkeit offenbaren klangliche Details und eine Dynamik die in dieser Preisklasse ihresgleichen suchen.

Object Names: Hubble Captures View of „Mystic Mountain“ Credit: NASA, ESA, and M. Livio and the Hubble 20th Anniversary Team (STScI)

Wir sind Mitglied der:  
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**HMS**  
KOMPETENZ IN KABELN  
MADE IN GERMANY

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03/2016  
August/September/October

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**Please note:** All items are listed with German retail prices (including sales tax) at the time of equipment evaluation.

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C.E.C. TL0 3.0

# THE ETERNAL DISC SPINNER

By Cai Brockmann. Photos: Ingo Schulz



There are billions and billions of CDs out there. It's worth getting standout digital equipment from Japan to play the best, finest and most valuable of them. ▶





C.E.C.'s great transport  
pushes every DAC to  
achieve peak performance.



C.E.C. builds turntables for CDs with astonishing similarities to analog machines. ▶



C.E.C. has announced that it will be showcasing the compatible converter for this transport at this year's HIGH END—we will be keeping our eyes peeled!



\_\_\_\_\_What do you want from a turntable? As stable a drive as possible, as little resonance as possible, and as uninterrupted a pick-up process as possible. Then the resulting music will be great. What do you want from a CD player? Exactly the same things, according to C.E.C., who, for almost a quarter of a century, has been building CD players with astonishing similarities to large analog machines, even in terms of sound.

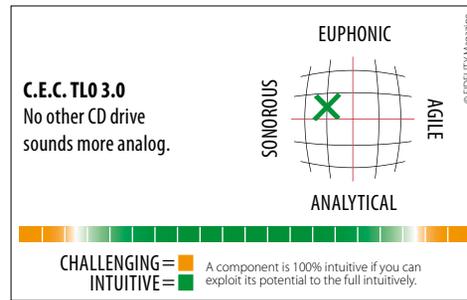
C.E.C.'s top-of-the range model pushes everything to the max in analog technology terms, so much so that it completely blurs the lines with the best record players—and yes, even in terms of the sound. The price

does, however hover up in the stratosphere where you only find analog heavyweights floating around. The TL0 3.0 weighs in at just under 20 kilograms (with the external power unit), meaning that each kilo will set you back €1,500. That's a total of just under €30,000—enough to make the “sensible” among us despair: penny-pinchers will complain because the expensive device can only read zeros and ones of audio CDs and nothing else. Digital haters will look down their noses because it champions the technology of yesterday (CDs), which had almost replaced the beloved technology of yesteryear (vinyl). And trend scouts simply won't understand why anyone in their

right mind would still spend their money on a machine that plays physical recorded music media. Who listens to CDs these days anyway?

Well, a hell of a lot of music lovers, actually. I do, for one. Admittedly, the price does take even my breath away. There's no getting away from the fact that audiophile know-how and top engineering exact their price—and in this case, it all adds up. C.E.C. has been right at home in both camps (digital and analog) for decades already. Founded in Tokyo in 1954, the company unveiled the first belt drive for record players that the same year. It experienced rapid growth selling its own products but also made a name ▶

Music instead of technology? Music thanks to technology? It doesn't seem to matter. The ideal situation for all things high fidelity is the audible absence of technology. The music alone is what counts.



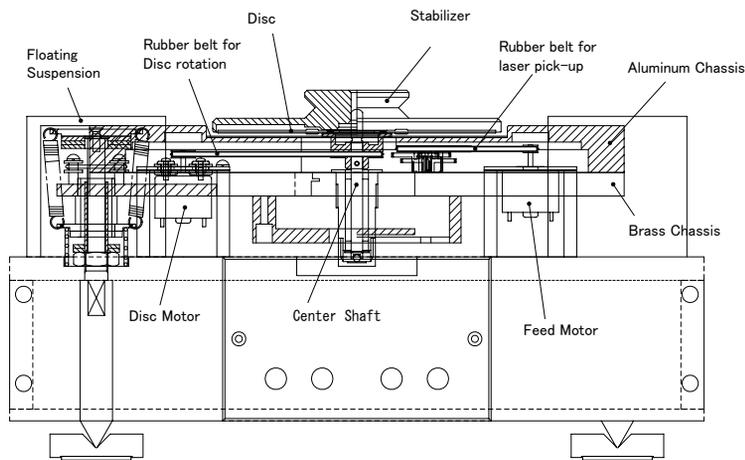
for itself as a supplier for numerous renowned audio companies. When the CD format made its debut in 1983, production of CD players was already running at full tilt. In 1991, C.E.C. surprised disillusioned CD listeners (indeed, “digital” did not inevitably mean “perfect”) with their old-school realization that belt drives and subchassis were also good for digital players when they unveiled the TL1 model, the “world’s first belt drive CD transport.” Burmester also laid claim to the same title for its 916 model, unveiled at roughly the same time, but that is not our focus here. What is interesting, however, is C.E.C.’s radical approach that sees the tonally

decisive construction principles of analog and digital drives as comparable. Even one of the most obvious differences—the constant 33-1/3 or 45 rpm of a record and the variation of between about 200 and 500 rpm of a CD—is, upon close inspection, obsolete. Rotation is adjusted in such small steps that the angular velocity of the CD during a relevant time period can be seen as constant. C.E.C. developed an entirely new, elaborately decoupled drive unit with a belt drive, low torque and astonishingly high mass. Patents followed. Well-heeled CD lovers celebrated the alternative design concept: C.E.C. had provided an analog oasis of inner peace in

contrast to the usual lightweight direct drives with their super fast adjustments and readjustments. Admittedly, the double belt drive for CD drives and laser carriages entails taking certain steps back in terms of operation. Ramp-up times and track skips aren’t at risk of setting any new speed records with a belt drive, but real fans are happy to accept that; all analog devices with a belt drive are considerably slower. Anyway, real music lovers don’t rush their music. So, let’s take a look at C.E.C.’s top-of-the-range model: Compared with the TL1, the compact yet sturdy TL0 works—without the otherwise usual ▶

## ACCOMPANYING EQUIPMENT

**D/A converters:** Audio Note DAC 3 Signature, Ayon CD3sx, C.E.C. DA 3N, T+A PDP 3000 HV | **Preamplifiers:** Nagra Jazz, Valvet Soulshine | **Power amplifiers:** Audio Note P2SE, Bittner Tonmeister 500, Bryston B4SST and B14SST, Musical Fidelity M8 500s, Nagra Classic Amp, Silvercore TB3/1000, Valvet A4 | **Integrated amplifiers:** Lyric Audio Ti 140 | **Loud speakers:** Bowers & Wilkins 803 D3, KEF LS50, Live Act Audio LAS312, Stereophone Dura | **Headphones:** Beyerdynamic T1, HiFiMAN HE-1000 | **Cables:** Audio Note, Axmann, HMS, MFE, Refine Audio, Silvercore, Vovox | **Power supplies:** IsoTek Aquarius EVO3 | **Accessories:** various products from Acoustic Systems, DEinforma, Steinmusic and Subbase | **Furniture:** LignoLab “Die Bank” (“The Bench”), Subbase Shambala



Frame made of aluminum plates, DRTS (“Double Rubbers Triple Springs”) subchassis, non-magnetic brass-aluminum sandwich, massive disc clamp, two motors and double belt drive—yes, this is a high-end CD player!

housing—even more like a record player; a “3.0” in the current player’s moniker indicates it is the third generation of the flagship device. Visible modifications since the predecessor TLOX include “rounder” edges on the six-edged sandwich subchassis and a more elegant appearance without any visible screws. In short, the transport looks simply gorgeous and radiates much more analog flair than any other digital machine. On the back, an unusually large number of connectivity options capture my attention, in particular a signal interconnect called Superlink that requires a quartet of interconnect cables. This four-way connection, specially designed in-house by C.E.C., transmits the myriad different “clocks” and the CD’s digital

audio data using separate cables. Common digital connections in accordance with S/PDIF or AES/EBU standards interlace the data read from the CD (master clock, bit clock, L/R clock and the actual audio data) with each other and transmit the coded digital signal over a common cable to the D/A converter where it must be decoded again and processed. Superlink bypasses the encoding and decoding process required for this, transmits the digital signals more reliably and streamlines the converter’s work. Of course C.E.C. recommends its Superlink to enable the transport to reach its full potential. Since C.E.C. currently (still) doesn’t provide any digital-analog converters on a par with the super transport, sales manager Frank

Koglin delivers the conventionally designed DA 3N as an audiophile sidekick that is comparatively inexpensive (the DAC is a steal at “just” €4,000). Nevertheless, this converter’s Superlink option should demonstrate just how noticeable the audible delicacy of the technology is. So? Does the large C.E.C. transport instantly wrap me around its digital finger with each combination? Well, with “completely normal” DACs, it usually takes a good half minute before the strong controlling hand of the transport can be clearly identified in the sound. But it is always clearly noticeable and works miracles with more mundane timbred DACs by turning comparatively plain zero-one slaves (for example from Ayon or T+A) ▶

1983: the first CD player,  
1991: first belt drive CD transport,  
2014: C.E.C. TL0 3.0 —  
the CD's official swan song is no more!



into extremely enthusiastic music sources that carry out their jobs with considerably more joy. To some extent, dynamics and attack win without becoming analytically sharp at all. Even my Audio Note DAC 3 Signature tube converter benefits from the Japanese data supplier: Compared with the superior sound authority the C.E.C. transport generates, the tried-and-tested CDT 3 must take a backseat. Energy, nuance of sound, and tonal power are compelling here, too. Recordings with proper groove are felt with even more emphasis, contour and depth. The data dominator from Tokyo quite clearly pushes every DAC to deliver an audible top performance. After imparting consistently astonishing assertiveness and

stability to all kinds of “foreign converters” and unveiling such a signature sound at the normal input of the C.E.C. DA 3N, the TL 3.0 once again notches up the performance with its Superlink connection. Time and space now become such a matter of course that I simply forget about them. In fact, the somewhat price-imbalanced combined digital duo (7.5 : 1 for the transport) reminds me of corresponding analog configurations. Anyone who has ever assembled a reasonably priced “good” pick-up cartridge in the super tonearm of a top-notch record player knows exactly what I mean: The result sounds stunning because the drive has the accompanying equipment totally under control. The only surprising thing might be that this realization also

applies to digital machines—and in this case, even to an old-school digital machine. Who listens to CDs these days anyway? ■

#### CD transport C.E.C. TL0 3.0

**Supported formats:** CD, CD-R, CD-RW | **Outputs digital:** balanced XLR (AES/EBU), unbalanced coaxial (cinch) and optical (Toslink), C.E.C. Superlink (4 x BNC) | **Inputs:** Word Clock external (BNC) | **Special features:** double belt drive for transport and laser carriage, subchassis, stabilizer (460 g), external power unit | **Dimensions of transport (W/H/D):** 30/32/16 cm | **Dimensions of power unit (W/H/D):** 12.5/10.5/26 cm | **Weight of transport:** 16 kg | **Weight of power unit:** 4 kg | **Warranty period:** 2 years | **Price:** €29,900

**Audiovertrieb Frank Koglin | Junkernstraße 5–7 | 47051 Duisburg | Telephone +49 (0) 203 9346643 | [www.cec-germany.com](http://www.cec-germany.com)**



## Ground-breaking digital-to-analog converter

With the new Ultra DAC, Meridian's engineers have produced a state-of-the-art digital-to-analog converter that is packed with pioneering technology, features a huge range of connection options and can handle practically any file format (including DSD, DXD and MQA).

[www.meridian-audio.com](http://www.meridian-audio.com)

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# BROWSER Nº 01

## Golden sound

The technically exciting Phantom speakers from Devialet have already caused quite a stir in the hi-fi world. With the Gold Phantom, Devialet has now gone a step further. Plated with 22-karat gold, this wireless speaker puts out 4,500 watts of power, is capable of hitting 108 decibels and boasts a frequency range of 14 hertz to 27 kilohertz. It will cost you around €2,600.

[www.devialet.com](http://www.devialet.com)

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# BROWSER N° 01



AudioQuest presents two additions to the DragonFly family

With these two new USB DAC models, AudioQuest plans to once again revolutionize the hi-fi world. DragonFly Black and DragonFly Red can be used with Apple and Android smartphones and feature a 32-bit DAC chip from ESS Sabre. DragonFly Black has an output of 1.2 volts and an analog volume control. With a higher output of 2.1 volts, DragonFly Red is compatible with even power-hungry headphones and boasts bit-perfect digital volume control. Coming in at around €200, it costs some €100 more than DragonFly Black.

[www.audioquest.com](http://www.audioquest.com)

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## ifi iPhono2—better than ever

The original iPhono phono stage from ifi Audio was long regarded as the defining affordable phono equalizer. But its successor, the new iPhono2, aims to improve on the past. Both maximum gain and SNR have been significantly increased. The RIAA equalization circuit guarantees +/- 0.2 decibel accuracy, and alternative EQ curves continue to be available. Free of coupling capacitors, the new DC Infinity circuit is designed to deliver an undistorted usable signal. The iPhono2 will probably retail for around €550.

[www.ifi-audio.com](http://www.ifi-audio.com)

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# BROWSER № 01



Einstein the preamp / The silver bullet

# WRAPPING YOU AROUND ITS FINGER

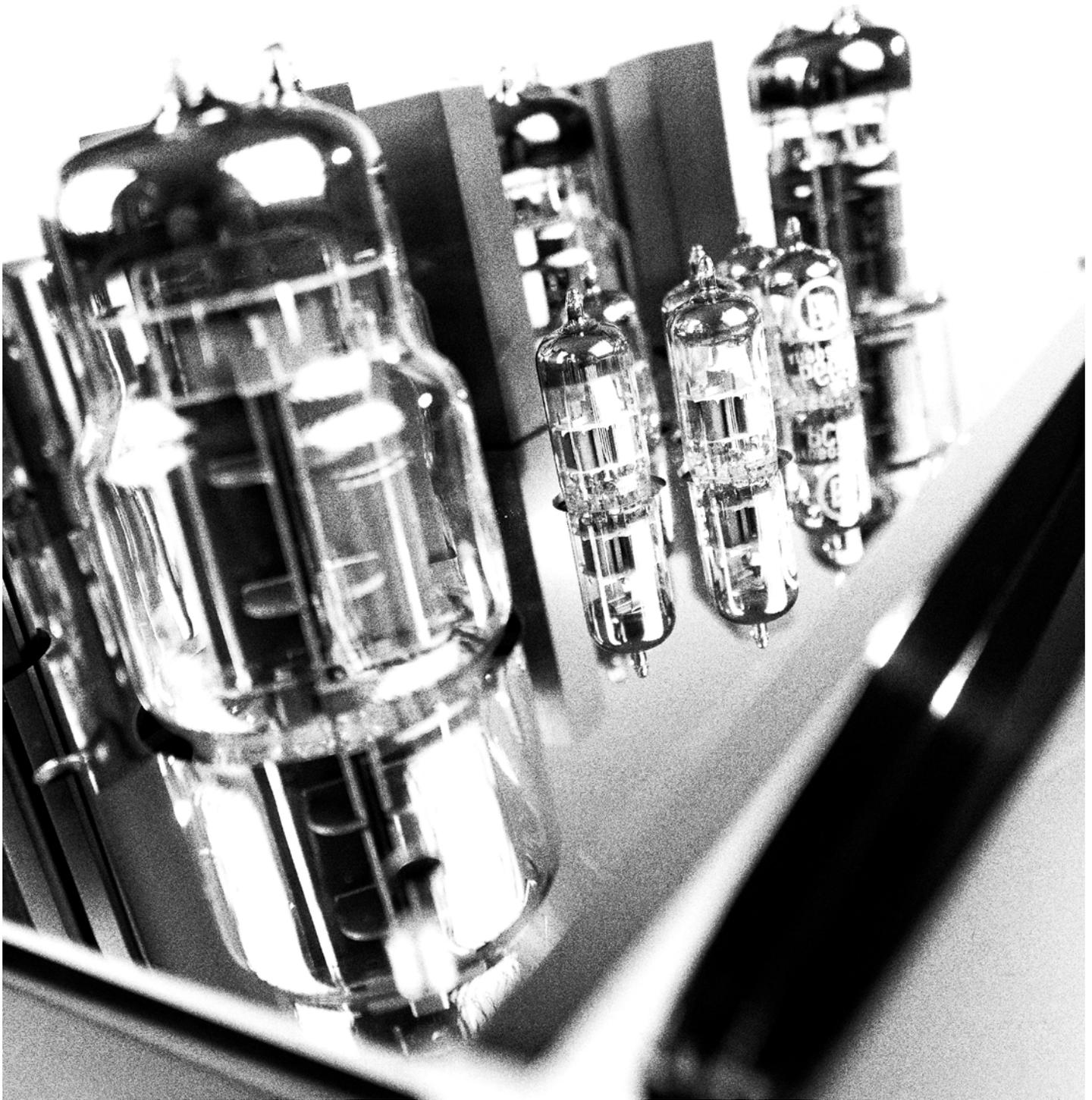
By Cai Brockmann. Photos: Ingo Schulz



THIS TRIO OF AMPS CAN BEND  
TIME AND SPACE: IT HELPS  
THE LISTENER SLOW DOWN,  
SUBMIT TO THE MUSIC, FADE  
INTO THE BACKGROUND, DIVE  
INTO A DYNAMIC AND SPACIOUS  
SOUND THAT EMERGES FROM A  
DEEP BLACKNESS.

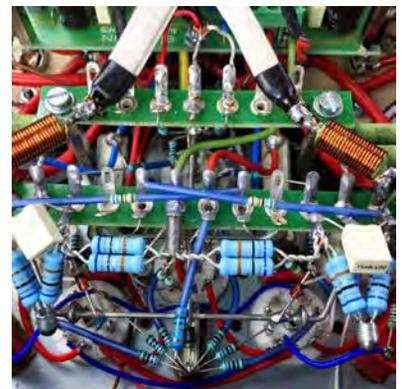
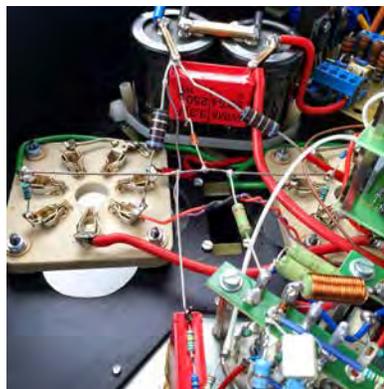


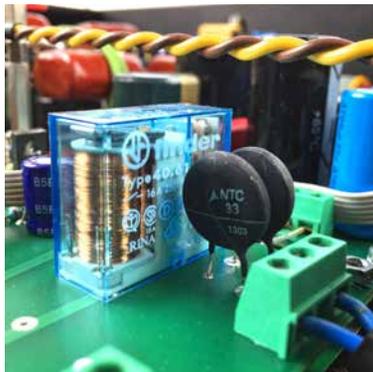




IT'S ABOUT NOTHING LESS THAN  
ITS NAME—THE SILVER BULLET.









Amazing how uncomplicated it is for The Silver Bullet to start up a musically joyous liaison with any first-rate loudspeaker.

\_\_\_\_\_ True luxury doesn't just happen. True luxury is deliberate. For me, luxury means, for instance, being able to enjoy music of an extremely good quality at home. Even after decades of working professionally with terrific and often convenient music machines, I am still willing to compromise in other areas—or even make sacrifices—if it means I'll have the best possible sound.

This is running through my mind as I approach a large tube amplifier trio from Einstein that consists of the new mono amp The Silver Bullet and the not so new but still current The Preamp. And I ask myself what will I have to sacrifice here in order to reach the pinnacle of sound.

In principle, working with Einstein's top models is easy and falls in line with what the practiced high-end listener already knows, Volker Bohlmeier indicates when he says: "Negligence is punished, careful attention is rewarded." But the man who heads production at Einstein promises an even better payoff in sound than is customary in exchange for greater care.

For me, luxury also means not always having to worry about technical details. I like to leave that to the colleagues (see box) and concentrate on the audiophile experience. How exactly do sacrifice and reward look?

Rushing things and taking a lax approach will have to be sacrificed, for instance. The trio doesn't like either of these. This is mainly due to circuit-based special features. Both The Preamp and The Silver Bullet are two of the

most radical hi-fi machines out there with the ability to make one's day—no, one's life—more beautiful. In return, they have a right to expect some respect and attention. But not for having a thousand knobs or even an app. To fully operate all three components, Einstein needs no more than five switches and knobs, all distributed nicely around the machine. And that is meant quite literally: The new amps have an on/off switch on the back, with the switch for the preamp under the front left, as it is on several other Einstein classics, too.

The distinctive, elegant and simply unmistakable front panel of the preamp features a display that isn't really one at all: when in operation, one blue LED shines in the small darkened display window. The source is selected on the left, the volume on the right—and both twist knobs provide direct access to true circuit specialties (see extra box). The expertly crafted solid knobs offer a pleasant tactile experience—high-end for the fingers as well. It really is a joy to turn them.

Too much action with the source-selector knob should, however, be avoided at all costs. After all, it is here that the radical minimum circuitry from brilliant Einstein developer Rolf Weiler is most noticeable. The customary switching between two active sources doesn't seem to take effect on The Preamp for the first few seconds. Only after a brief reflection period does The Preamp gradually fade out the first source and fade in the new one. This highly unusual process takes so long that nervous nellys, compulsive tinkerers and other

exhibit visitors may have already had another go at the knob before the actual switch was made. The operation manual states: "Please use our preamp as a component for listening to music and not as a means for testing cables." Nothing more needs to be said—even though the switch time (I would call it "flexitime") takes only a fraction of the "approximately one minute" indicated.

And while we're here pointing a raised finger at The Preamp: just don't let anyone flick their fingers against the row of tubes on the back! That's where they are, those flexitime circuits, in the form of tubes: 10 type E88CC, one per input jack, in two rows of five and kept gently vibrating on springs. While the dual swing quintet is reminiscent of Jell-O, that amusement park ride swingboat or LP12 when exposed to mechanical force, the sub-chassis principle seems to work splendidly. Because all told, The Preamp sounds simply fabulous—oops, did I give too much away? Certainly not. You spotted the price tag earlier and were already expecting that kind of review, weren't you? Yes, having exquisite taste and demanding only the best has always been expensive. But whether you believe it or not: With The Silver Bullet, Einstein doesn't focus on platitudes like outrageous performance details or compulsive five-digit price tags or on electricity rates or cleaning restrictions for personnel. On the contrary, it's about nothing less than its name—The Silver Bullet. But how wonderfully romantic hi-fi can sometimes be: We're following the "royal road" to ►



Both The Preamp and The Silver Bullet are two of the most radical hi-fi machines out there with the ability to make life more beautiful.

music... with OTL tube amplifiers that tip the scale at 30 kilograms, even without the customary transformer. That's 30 kilos each.

Those spoiling for a fight or always needing a victory will probably liken The Silver Bullet to the term "super weapon," derived from the silver bullet used to kill werewolves. I personally don't care for that, however, though some of my preferred music choices would presumably suggest otherwise. As a peaceful person, I prefer to take Einstein's "royal road" to perfect music playback. There are a few things to consider to ensure the journey is a pleasant one. Even the nicest path is nothing without proper shoes and a few experienced companions. For the two monos, in particular, any smooth, low-resonance spot is suitable as long as there is plenty of ventilation for it to do its work. I can recommend the "slotted" Quadraspire-Rack Reference X as well as the bases from Solidsteel and Subbase. For cables, I would go for the "Wild" series from AudioQuest (FIDELITY No. 25), as befits this festive occasion. It goes without saying that for those wanting to elicit the full potential of the Einstein combination there is a symmetrical link between the preamp and power amp.

High-impedance loudspeakers are more likely the ideal partners for The Silver Bullet than energy guzzlers with close to zero impedance. Due to their circuit principle, this point is where OTL amplifiers are rightly considered to be picky, even though, in practice, The Silver Bullet has virtually astonishing stamina and doesn't simply take anything that shows up at the first meeting.

A B&W 803 Diamond D3 and my Stereofone Dura really let the power amp loose. Thanks to the outstanding Einstein qualities—clarity

and captivating, lightning fast dynamics—with certain genres I am still prone to move the level controller mentioned earlier just a tad clockwise until it makes that "click" and the brilliant protective circuit of The Silver Bullet gives me a brief, not entirely unexpected break. And 30 seconds later it picks up again as if nothing happened. Einstein considers "one hundred percent reliability a matter of course" even for the technically sophisticated OTL power amp. And what about its teamwork skills? For the absolute highest highs—including almost impossible level reserves—avid transducers are a good match, including those from Avantgarde Acoustic, DeVore Fidelity, Live Act Audio, MFE and Odeon, just to mention a few potential candidates in alphabetical order. On the other hand, for an entirely different, overall more relaxing (or ethereal) sound, combinations with larger panel emitters can be used, such as those from MiTec or Silverstatic. Alternatively, unparalleled passive speakers from Manger Audio are a top choice as are exquisite small monitor speakers from Audiomachina, Audiovector, Capriccio Continuo or Diapason. In any event, what is absolutely fascinating is how quickly and controlled the Einstein combination plays the music. Amazing, too, how uncomplicated it is for The Silver Bullet to engage in a musically joyous liaison with any first-rate loudspeaker. In a class of their own as soloists, the synergetic team of Einsteins seems to be saying that they aren't simply bringing music to my ears, they're going about it in a very deliberate way: with maximum clarity, without any strain whatsoever, with the utmost care and attention to the very last detail. As if the amplifiers are generating the energy to spur themselves on! From capturing the overall acoustics

of a huge stage to the slightest variation in a seemingly monotone rhythm pattern—only truly great high-end audio equipment can offer such an impeccable three-dimensional panoramic experience. Without a doubt, The Preamp and The Silver Bullet are members of this illustrious circle.

Of course, given the proper quality of the recording and auxiliary devices, the Einstein flagships create the sensation of capturing music in a perfectly intact totality. Marvelous! Even rhythmic and highly complex sound nuances—such as those in *800% Ndagga* by Jeri-Jeri—are so effortlessly and precisely decoded and then virtually projected as a holograph into the living room that I have at times almost completely lost sight of time and space. There is nothing to disrupt the flow of music. And the extreme openness of the sound does the rest, instantly putting all thoughts of the technology out of mind. What the brand with the famous name projects into the listening room is incredible. Inspired, I step along this two-lane "royal road" for audiophiles to follow the music. ■

#### Tube preamplifier

##### Einstein The Preamp

**Inputs:** Symmetrical line x 2 (XLR), asymmetrical line x 3 (Cinch) | **Outputs:** symmetrical (XLR), asymmetrical (Cinch) | **Tubes:** 10 x E88CC (inputs), 8 x PCC88 (outputs) | **Dimensions (W/H/D):** 43/20/41 cm | **Weight:** 21 kg | **Warranty period:** three years (tubes one year) | **Price:** € 17,000

#### OTL tube mono amplifier

##### Einstein The Silver Bullet

**Output (12/8/4 Ω):** 80/65/45 W | **Tubes:** 6 x E88CC (driver stages), 4 x 6S33S | **Input:** symmetrical (XLR) | **Output:** 1 x loudspeaker (screw terminal) | **Dimensions (W/H/D):** 43/24/50 cm | **Weight:** 32 kg | **Warranty period:** three years (tubes one year) | **Pair price:** € 42,000

#### Einstein Audio Components GmbH |

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THERE IS NOTHING TO DISRUPT  
THE FLOW OF MUSIC.



## Technology I

## EINSTEIN THE PREAMP

Tubes sound good! As the first tubes were manufactured in large-scale production during the 1920s, this was one of the strongest compliments equipment could receive. What it referred to was the result of nudging an amplifier tube to produce “ringing” sounds. This was caused by the mechanical vibrations of the grille that could be heard in headphones and later in loudspeakers. It was considered the standard in high sensitivity. Microphonics, the proper term for this phenomenon, is naturally unwelcome when it comes to amplification of a pure audio signal. As a result, high-end manufacturers are highly selective in the constructing of tubes and the use of mechanical decoupling in their efforts to prevent microphonic effects. With The Preamp, Einstein was meticulous in preventing interference from the tubes by simply taking mechanical precautions. With what is a considerably more robust and larger housing compared with its predecessor (The Tube), The Preamp allows placement of a special sub-chassis to decouple input tubes. In addition, undesirable heat from the elements is kept at a distance, which minimizes unnecessary noise. The fully symmetrical signal routing allows the audio signal to be amplified without interference across the entire circuitry to the output jacks. External interference—asymmetrical signals such as humming or crackling—are removed in the unit through the symmetrical signal routing. Potential phase problems are also completely eliminated. Professional studio technology sends its regards.

The Preamp by Einstein is also exceptionally well designed for audiophiles. Thanks to extremely high (and low sound) high frequency triodes with type PCC88 grilles, only a few elements are needed to create linear,

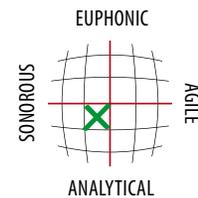
two-stage amplification without any detours. With its comparatively low internal resistance and linear amplification into the megahertz range, the PCC88 is descended from TV tuner technology and ensures a low impedance output of The Preamp. That means there’s no problem even when longer cables are needed to reach a more distant power amp. One very special—and in my experience, unique—goody can be seen in the source switching. It supports the Einstein philosophy of creating as short a signal path as possible: Every input of The Preamp has “its” own tube. When a source is selected, the signal path is not affected: Only the tube designated for that input is heated and put into operation; the other, unheated, tubes don’t amplify. The advantage: The direct signal path of the source is not impeded by the relay, switches or the switching transistor. To prolong life (and better sound), hectic back and forth switching among inputs should be avoided, however.

Two more Einstein delicacies are left to be mentioned: the power supply line and volume control. Primarily to avoid noise interference, The Preamp’s power jack is situated very close to the power supply: on the left, lower part of the housing, where the on/off switch is also located. A first-rate power cord with matching angle plug is included with The Preamp as standard. Volume control, on the other hand, does not cross the signal path, which provides incredibly good signal-to-noise ratio from interference. As a result, the entire dynamic bandwidth is delivered, even at a low volume, and there is no audible static or humming in the listener’s ear when the knob is turned up all the way.

Erich Engel

**The Preamp**

Listeners who pay attention to proper auxiliary players and who take an unruffled, a patient approach will be rewarded with clear, generous, dynamic and all-encompassing sound experiences from Einstein’s greatness. A tube preamplifier like no other!



CHALLENGING = ■ A component is 100% intuitive if you can exploit its potential to the full intuitively.  
 INTUITIVE = ■

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## Technology II

## EINSTEIN THE SILVER BULLET

It is generally known that every audio signal consists of positive and negative deflections in a more or less sinusoidal curve. To amplify such a signal, the amplifying voltage or current has to follow this curve's peaks and valleys—the more precisely it does this, the better. Tubes were invented specifically for this task. It quickly became evident that the technical design of such tubes has a direct impact on the playback quality of the amplified signal situated at its input—the grille. Not only did countless new tubes arise from this finding, but their environment, the switching, has also been continuously improved.

Tubes work with high voltages and comparatively low current. The resulting output can be considerable. But: A loudspeaker that needs low voltage and high current cannot be directly connected to the tube. The current-to-voltage ratio needs to be the other way around. The connection can only be made with a transformer. For this component, usually made of copper (for providing oscillations) and iron (for its transmission), iron is the limiting element. In audio applications with the highest transmitted frequencies, it needs to be remagnetized up to 20,000 times per second. Considering that output transformers' weight in iron sometimes comprises more than half of the amp's entire weight, many high-end fans are amazed that this concept even works.

But there is a better way. To increase current, the positive and negative deflections of the audio signal are used: every half wave gets its own tube. This push-pull amplifier more than doubles the output current compared with an individual tube. While the transformer can work with less iron, this element is by no means superfluous.

To accomplish precisely this increase in current, Einstein uses a Russian tube with outstanding features: Type 6S33S (written in Cyrillic: 6C33C) has its roots in Russian military production and uses an anode voltage of just 120 volts to allow a current of more than 600 milliamperes. It functions with a double diode whose two systems are connected in parallel in a shared bulb.

In addition, it's very robust design makes it particularly insensitive to vibrations—the keyword here is again microphonics.

The icing on the cake for the concept of the tube push-pull amplifier comes in the form of The Silver Bullet OTL. Here, Einstein simply does without the output transformer that heavily influences sound. With a fully symmetric signal path (see the description of The Preamp), it is possible to lead the amplifying audio signal with its positive and negative deflections at the input through to the voice coil of the loudspeaker—with no detours between copper and iron and the resulting, inevitable distortion that can occur when the iron is remagnetized. The loudspeaker is thus directly connected to the power amp without an intermediate output transformer (OTL = output transformerless) in the truest sense of the word. Chief developer Rolf Weiler makes use of a proprietary version of the historic circlotron circuit that was already proven in the predecessor model, The Final Cut. Einstein's elegant circuit also draws from floating power supplies and floating, extremely robust voltage supplies. This version, however, involves two "symmetrical single-ended amplifiers with counter-rotating standby currents" that grip the loudspeaker using the anodes of the tubes rather than the cathodes.

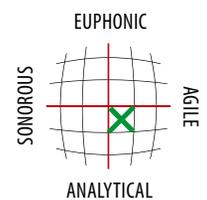
To eliminate damage to the sound converter from the towering tubes, which the transformer would normally prevent, all of the tubes used in The Silver Bullet undergo a very strict selection process. In addition, Weiler has also developed a special protective circuit that is not part of the signal path and quickly and reliably mutes the OTL amp.

The technical data is consistently outstanding, particularly the damping factor of the OTL tube amp that is several times higher than the usual values of conventional designs. And the outstanding signal-to-noise ratio is achieved not only through fully symmetrical circuit configuration and careful selection of the components, but also through meticulous details such as an extra protected tunnel to channel the power supply through the device.

Erich Engel

**The Silver Bullet**

Listeners who focus on having plenty of space to breathe and proper sound converters will be rewarded with clear, generous, dynamic and all-encompassing sound experiences from the Einstein super OTLs. Note: Silver Bullet means more than just "wonder weapon." Above all, it's all about the "royal road" to good listening! A tube power amplifier like no other!



CHALLENGING =  A component is 100% intuitive if you can exploit its potential to the full intuitively.  
INTUITIVE = 

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x-odos xo|one

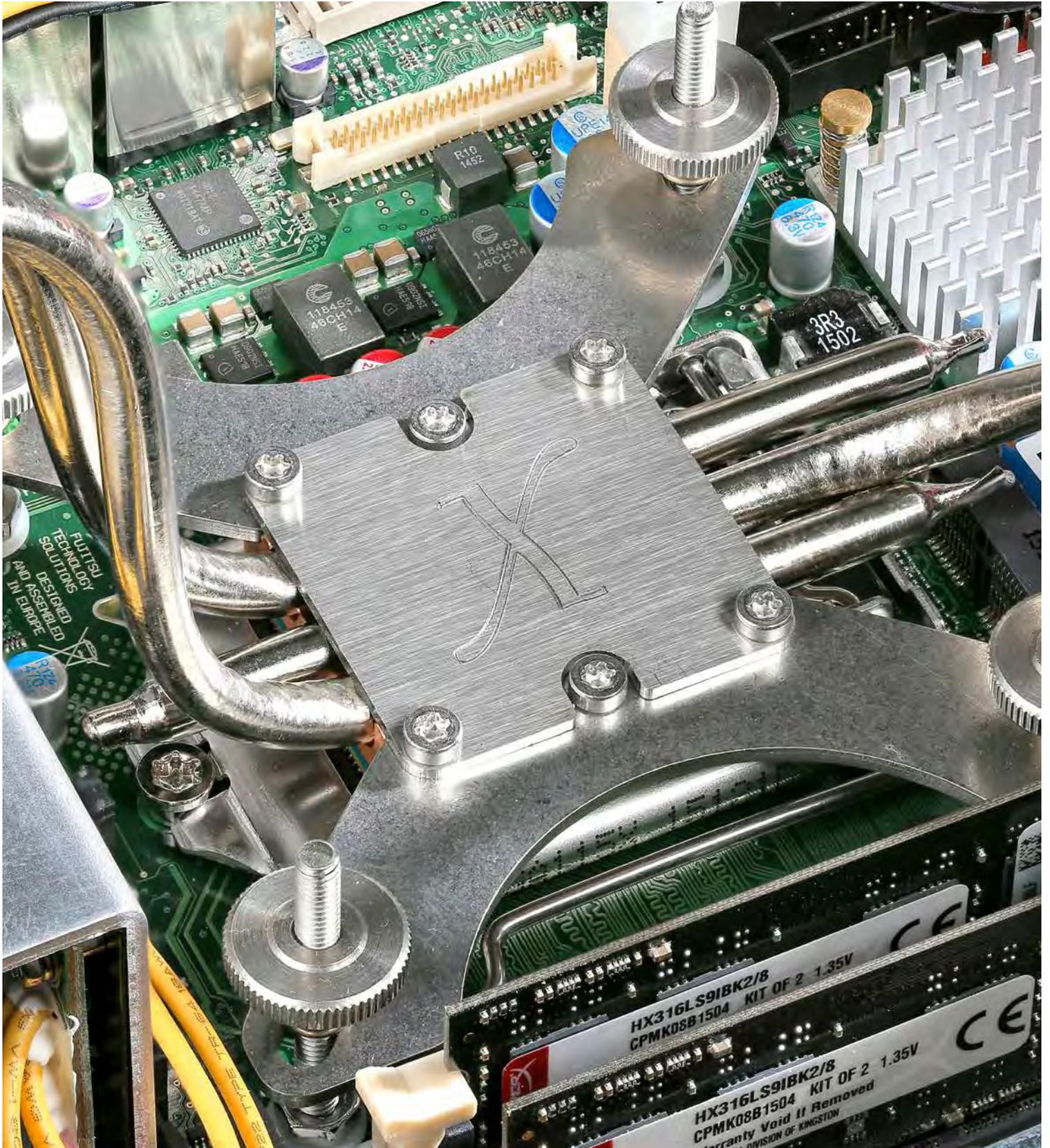
# CHARISMATIC HIGH-TECH HEAVYWEIGHT

By Harald Wittig. Photos: Harald Wittig, Ingo Schulz

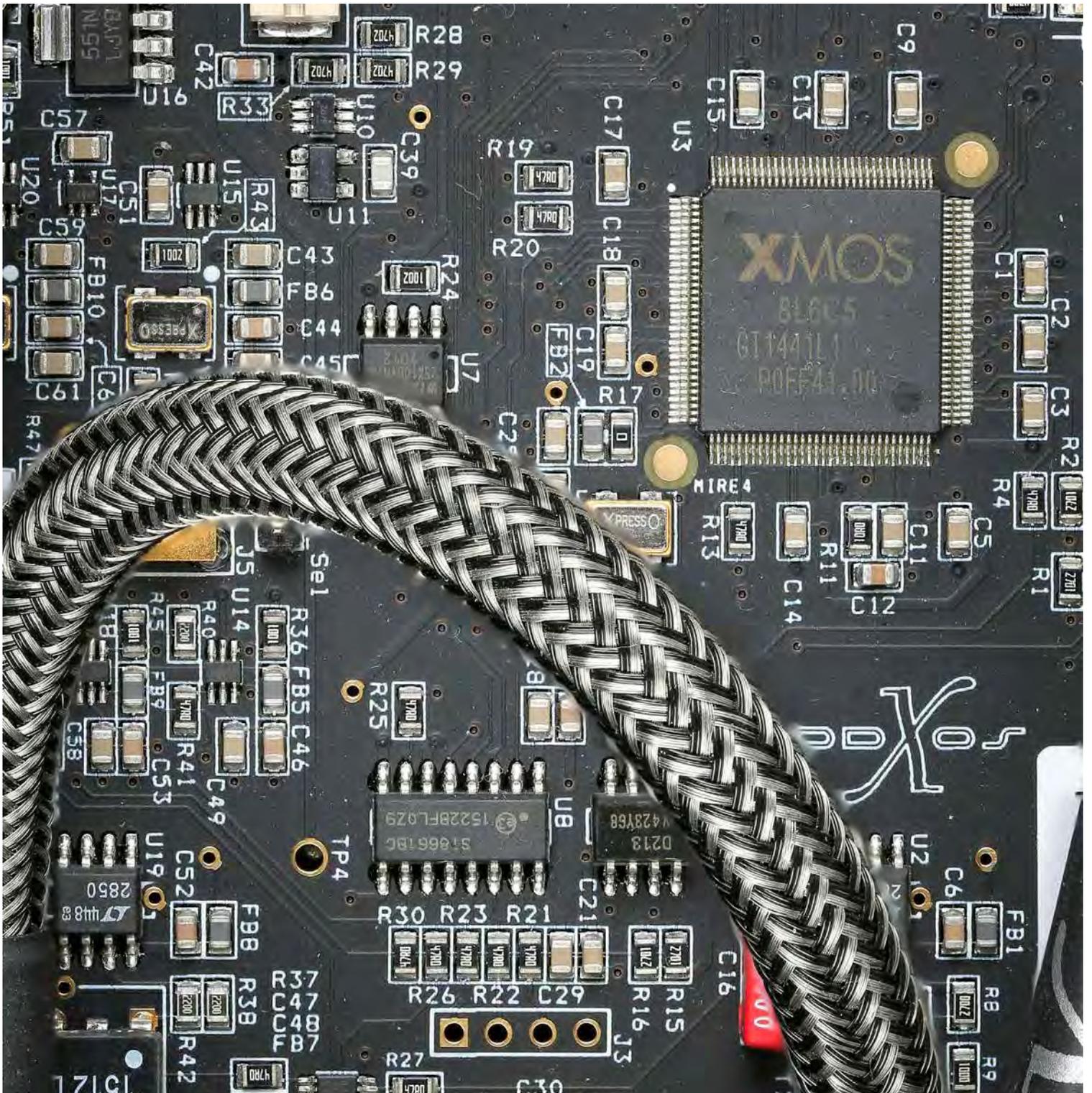


A newcomer to the scene, the xo|one wants to attract the attention of digital audiophiles—and has a long list of great arguments working in its favor. ▶





First and foremost, the xo|one is a music server that is capable of storing music files on an internal storage device (that has at least one terabyte of memory). ▶



The xos|one can deal with all the common compressed and uncompressed formats, including DSD, up to a maximum of 24 bits (bit depth) and 192 kHz (sample rate). ▶

“The xo|one can be exclusively controlled over a network and by using our app.”



Christof Poschadel is the mastermind behind x-odos, a relatively new company based in the German city of Freiburg. His primary goal is to create devices for digital audiophiles that reflect cutting-edge standards. This is why the xo|one music server, the company’s very first product, is designed so it can be controlled using an iPad or iPhone. No conventional remote-control devices or control panels are provided. As the x-odos manager explains: “We did initially consider having a touchscreen, but this was quickly dismissed as being too outdated. So the xo|one can be exclusively controlled over a network and by using our app.” Although this app currently only runs on Apple devices, an Android version is being developed. The xo|one was unveiled at HIGH END in 2015, but the version of we were able to test contained a number of modifications to the unit originally showcased at the fair. First and foremost, the xo|one is a music server is capable of storing music files on an internal storage device (that has at least one terabyte

of memory). The basic configuration with a one terabyte solid-state disk costs €6,000, and you have a choice of silver-, black- or champagne-colored faceplates. According to Christof Poschadel, the champagne color is intended for “Accuphase fans.” Although the device can handle music files from a network or external storage devices, the files need to be stored on the internal hard disk before they can be played. The built-in drive looks like a normal CD player, but it can be used exclusively for ripping music CDs. The xo|one has no digital-analog converter of its own, so you’ll need such a device before converting ones and zeros back into sound waves. Digital data can be output either in S/PDIF or—and this is a very recent addition—in the studio-quality AES/EBU format. But development work at x-odos continues in this area, too. As Christof Poschadel explains: “We’ll soon be able to provide a D/A converter as well—developed and manufactured in-house, of course. It’ll be integrated into our upcoming streamer and also be available as a stand-alone device that can be added to our xo|one.” ▶

The massive heat sink fins ensure temperatures remain at an optimum level and permit almost completely silent operation.



## High-tech for hi-res

Let's move on to the test bundle we received, comprising xo|one, iPad and additional accessories, some of which were also brand new. After opening our package, we first took a good look at the music server itself—the star of the show. Weighing in at 14 kilos, the xo|one is a hefty yet elegant unit. Primarily responsible for this weight are the heavy heat sink fins located on the left and right of the device and the faceplate made of solid brushed aluminum. Although a music server is really a specialized type of computer, x-odos decided against installing an active cooling system. Not wanting to spoil the musical enjoyment with noise from a fan, they decided to use passive cooling instead. The music files are stored on an internal solid-state drive (SSD), with our test server offering one terabyte of space. Unlike conventional hard disks, solid-state drives have no moving parts. This and the use of passive cooling means the server operates almost completely silently. The SSD is used only for storing music files—the xo|one's operating system is located on a conventional hard disk.

Taking a critical look at the interior of the device, it becomes immediately clear that the server has been carefully assembled using high-quality components. The manufacturer has opted to install expensive, industry-grade mainboards, bringing long-term robustness and simplifying any necessary maintenance. The CD drive is on the right-hand side of the housing and can be used solely for bit-perfect ripping of CDs. The first xo|one models had TEAC drives, but our test device was equipped with one from Panasonic. "Both are equally good," explains Poschadel. "Of these two drives, we install whichever is more readily available at the time of manufacture. Each xo|one is built by hand, and every component is rigorously tested. We use only premium parts." CDs are ripped automatically. All you need to do is insert the CD into the slot. After the disc has been pulled in, the xo|one starts the ripping process, accompanied by a low humming sound. An album with 45 minutes of music takes around seven minutes to fully rip. The individual tracks are converted into the free lossless audio codec (FLAC) format. These files require only a modest amount of disk space. According to the manufacturer, the one terabyte SSD can store ▶

CDs are ripped automatically and with high precision.

Brand new, the optional infrared transmitter can be used as a LAN interface to remotely control your hifi system from the operating app.



up to 3,000 CDs. In the highest configuration level (with a four terabytes SSD, costing around €8,000), the xo|one has room for some 12,000 albums.

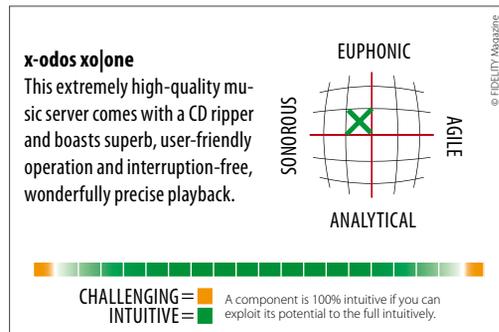
## A database for everyone

Neither network integration nor the operating app is necessary to rip CDs. This heavyweight from Freiburg really has, however, been designed as a server for precise, bit-perfect and jitter-free digital music signals. Digital audiophiles use devices like this one to store and play what is known as hi-res music—that is, high-resolution digital audio files. According to the accepted definition, this includes any material that has a resolution higher than the usual CD quality (16 bit/44.1 kHz). The xo|one can deal with all the common compressed and uncompressed formats, including DSD, up to a maximum of 24 bits (bit depth) and 192 kHz (sample rate). To store files such as these on the xo|one's solid-state drive (and listen to them afterward) the device must be integrated into the network. The operating

app is also required for this. Set-up is generally pretty easy. The music server must be connected to a vacant LAN port using the high-quality cable provided. Once it has been switched on, it should pop up on your computer (in Mac OS X-Finder or Windows Explorer) as a “PC server” under its own name. If this doesn't happen, restart the router (if necessary), set up a Wi-Fi connection to the iPad and then start the xo|one app. Touch the radio symbol at the lower left of the screen to open the Connections window. That's it!

You should now see the xo|one and can get started. The CD we ripped beforehand is already in the library. But because it was ripped while we were working offline, it is shown as an “unknown album.” As this is not what we would want, we deleted the folder (working from the PC) and then inserted the CD again. After touching the xo|one logo at the top right of the app and “rip status” in the next menu, we can monitor the ripping process. The app consults the FreeDB and MusicBrainz databases, retrieving the CD's metadata and cover (if available). The hit rate was pretty good in the CDs we used: the app made ▶

Although a music server is really a specialized type of computer, x-odos has decided against installing an active cooling system.



#### ACCOMPANYING EQUIPMENT

**D/A converters:** Vioelectric DAC V800, Mytek Digital Stereo192-DSD DAC | **Active speakers:** Nubert Nu-Pro A 200, ME Geithain RL 906 | **CD recorder/player:** Fostex CR500 Master | **Cables:** Vovox, x-odos

a mistake with only one of our 10 test albums. And we assume that more powerful databases such as Gracenote or AMG will deliver even better results. Connections to these databases are planned, assuming x-odos and the providers can reach an agreement on licensing fees. Such fees can be really “horrendous,” says Poschadel, especially for a small, relatively new company such as x-odos. The app already has a built-in connection to the online shop of one of the leading providers of studio-quality HD downloads—HighResAudio. xo|one owners who have set up an online account with this provider can purchase and download high-resolution material directly from the app. It’s a simple and convenient process. You can listen to Internet radio from the app as well.

Especially those music fans who’ve had more than enough of mainstream offerings will find a whole new world of less widely played genres to rekindle their interest. Because the xo|one also supports UPnP, its music library is available to other devices on the network, and it can be used as a NAS server. We tested this by playing Sinatra’s *Come and Fly with Me* album using a MacBook Pro and Audirvana Plus. It worked perfectly. The music

library can be edited at any time from a networked computer using a standard Web browser. All you need is the xo|one’s IP address (available from the app). The connection is easy to use, even for those with limited knowledge of computers and networking. You can also use this method to import and export data over the USB 3.0 interface. Making backups of your data on an external storage device is particularly easy. As an alternative, you can use the Mac OS X-Finder or Windows Explorer on your computer to copy files to connected disks or USB sticks. You can, of course, also copy data into the server’s music library from other devices.

#### Turning data into sound

x-odos tries to make it as easy as possible for xo|one buyers to enjoy their music, and their app is exceptionally user friendly. The company has developed a LAN infrared transmitter as an optional add-on (€200). Soon to go into series production, this device is able to remotely adjust the hi-fi system’s amplifier over the app. Poschadel provided setup assistance over the ▶

Once high-resolution music is involved, the fun really starts for audiophiles.



phone when we tested the preproduction model of this device. The series model will require no such assistance. Adjusting the volume from the app through the infrared interface is certainly convenient, but you can definitely enjoy the xo|one without it as well.

Once you have listened to a ripped CD from the xo|one and then play the album on a semi-professional CD player (both devices connected first to a Vioelectric DAC V800 and then a Mytek Digital Stereo192-DSD DAC), you will clearly hear the enormous difference in quality. I have never experienced the “Dance of Fire” ethno jazz album by Aziza Mustafa Zadeh and her all-star backing group in such precise depth and breadth and with such finely controlled dynamism. The same can be said for the excellent Brazilian guitar duo of Martin Müller and Oscar Ferreira or the classical guitar version of “Tubular Bells” played by Duo Sonare. It quickly became evident that a CD is no match for bit-perfect and practically jitter-free digital data from a music server of this quality. Interestingly enough, the music appears to be even more expansive and three-dimensional heard over the AES/EBU port than through the S/PDIF interface. It would seem this new digital port is a true bonus for listeners.

Once high-resolution music is involved, the fun really starts for audiophiles. The 24 bit/88 kHz version of the “A Capella I” album from the legendary vocal group The Singers Unlimited is packed with so much volume and subtlety that I ended up playing it three times over. And once I’d heard Oscar Peterson tickling his Steinway’s ivories with such finesse on the DSD version of his MPS solo album “My Favorite Instrument,” the verdict was crystal clear: The xo|one is a high-tech device that’s enormous fun to own, and, most importantly, is honey to the ears of discerning audiophiles. ■

#### Music server

##### X-odos Xo|one

**Functional principle:** music server with automatic CD ripping and NAS function | **Connections:** 2 x digital out (AES/EBU, S/PDIF), USB 3.0 (file import/export via intranet), LAN | **Music data storage:** SSD, 1 to 4 TB (upgradeable) | **Compatible formats:** all formats up to 24 bit/192 KHz | **Special features:** own control app for iOS devices (Android version to follow) with integrated HiRes download shop and Internet radio, passive cooling, optional network infrared interface (200 euros) | **Casing:** front in silver, black or “champagne” | **Dimensions (W/H/D):** 45/14.5/33 cm | **Weight:** 14 kg | **Guarantee period:** 2 years (including online support) | **Prices:** starting from 6,000 euros  
**X-odos GmbH | Schwaighofstraße 2 | 79100 Freiburg | telephone +49 (0)761 88141258 | [www.x-odos.com](http://www.x-odos.com)**



...and now for something completely different...

MANY AN ANALOG FAN HAS DREAMT  
OF OWNING A PERFECT TANGENTIAL  
TONEARM. AND WITH THE NEW TT5  
FROM CLEARAUDIO, THAT DREAM JUST  
GOT A LOT CLOSER. ▶



ZERO-CROSSINGS BECOME LESS THREATENING  
WHEN THEY NO LONGER OCCUR IN PAIRS. ▶





THE INWARD PULLING FORCE OF THE GROOVE SPIRAL ALONE GUIDES THE CARRIAGE OVER THE RECORD. ▶



THE TT5 WORKED FINE WITH ALL THE CARTRIDGES USED IN THE TEST BUT CLEARLY WORKED BETTER WITH SOME MORE THAN OTHERS. ▶

#### ACCOMPANYING EQUIPMENT

**Turntables:** Technics SL-1200GAE (incl. tonearm), Feickert Analogue Firebird | **Tonearms:** Mørch DP-8, Brinkmann 12.1 | **Cartridges:** Clearaudio MC Essence and Da Vinci, Ortofon Quintet Bronze and 2M Black, Audio Technica 50ANV | **Phono preamplifiers:** Lehmann Black Cube Decade, MFE Tube One SE (integrated) | **CD player:** Revox C221 | **D/A converters:** Canever ZeroUno, PS Audio Digital Link III | **Preamplifier:** MFE Tube One SE | **Power amplifier:** DNM PA3S | **Integrated amplifier:** Genuin Straight | **Loudspeaker:** Steinmusic Masterclass SP 1.1 | **Cables:** Audiophil, Musical Wire, MFE, DNM | **Accessories:** Steinmusic, Sun-Leiste, Hannl, Audiophil



THE TT5 RESISTS THE SOFTENED,  
NASHVILLE-STYLE PRODUCTION. IT IS  
NOT LULLED BUT INSTEAD REMAINS  
ALERT AND EMPHASIZES CONTOURS.

Clearaudio TT5

# STRAIGHT TO THE POINT

By Helmut Hack. Photos: Ingo Schulz

——— In theory, tangential tracking is the best as it's not subject to the tracking-angle error inherent in radial tonearms. It isn't necessarily zero degrees, as is often claimed, but roughly zero degrees or so close that the difference is negligible, provided the cartridge has been properly adjusted. Tangential arms do, however, have one real disadvantage: Even the basic, entry-level models are extremely expensive. One of the serious alternatives up to now has been the Clearaudio TT3, a real bargain at just €3,000. But it now has some competition from within the same company: The new "small" TT5 goes for about two grand.

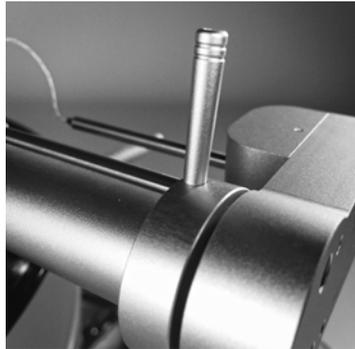
For that, you get a very high-quality interpretation of the principle, which was introduced by Souther back in the 1980s. Clearaudio took over the American company a few years after that and has been refining the design ever since, primarily in terms of its choice of materials. The first generation of the TQ-1 arm, an unmistakable precursor to the modern Clearaudio TT2,

was still being constructed in the United States at the time. Its dome design—its superstructure—has been jettisoned for the TT5, which has also been greatly downsized. The functionality remains unchanged, though.

Even if you eliminate the (possibly exaggerated) problem of tracking-angle error with a tangential tonearm, you encounter a few new challenges: The pickup still has to be moved as gently as possible over the record. Back in the heyday of this technology in the 1980s, a broad range of control systems were devised. These included servomotors, chain drives and cable pulls: in short, solutions using active control. They all had one disadvantage that couldn't be ignored: Corrective adjustments were only ever made after the damage had already been done. The approach adopted by Souther, and subsequently by Clearaudio, was to use the minimal tracking force of the groove itself. Passive pulling rather than active pushing seemed, in contrast, theoretically more

harmonious, but the tracking force needs to overcome the frictional resistance of the arm guide with as little effort as possible.

With all Clearaudio tangential arms, a carriage, that holds the system, runs in a cylindrical glass collar on two small-diameter metal rollers. Glass is more suitable than aluminum or steel because it's tough. Gemstone would have potentially been even better but would have driven the cost up. The inward pulling force of the groove spiral alone guides the carriage over the record. For this to happen, the horizontal alignment of the round bridge needs to be perfect. This is accomplished by adjusting two little screws located at the base of the bridge in a back-and-forth fashion until the bubble in the integrated level lands exactly in the middle. Previously, you would have had to have chosen one of the round tracking weights and placed it more or less on the actual thin arm tube (it's a few finger widths longer than a cartridge razor) and then determined the ▶



vertical pickup angle. Unlike with pivot tonearms, the counterweight used with tangential tonearms may be located very far away from the bearing point in order to compensate for at least some of the inertia created by warped records, which generally present a challenge for tangential tonearms with a static tracking force.

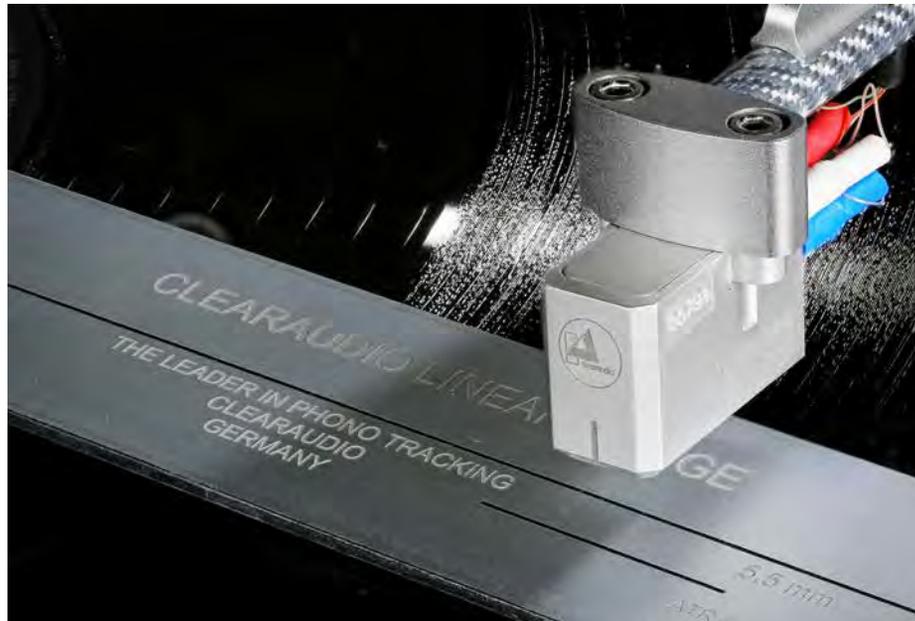
Neither setting up a TT5 nor adjusting it is more difficult or challenging than doing the same with an average pivot tonearm. It's just that other variables come into play. Sweaty hands posing a problem is a thing of the past when it comes to adjusting the system because it is installed using two half-inch holes in the headshell. Even zero-crossings become less threatening when they no longer occur in pairs. And now that there's finally no skating force at work, there's no need for any blasted antiskating. Hurray! Plug & play! Well, okay, not quite. Since the cartridge has to be guided to the center axis in a straight line, the guide arm has to be exactly parallel to that imaginary line. Extreme precision is required as there is only one ideal line here in relation to the tonearm base, the smallest of errors in the final execution could wreak havoc. Here's a practical tip: If you measure a gap of 64 millimeters between the tip of the stylus and the front edge of the carriage two times, the rest will

take care of itself. In the end, it's worth paying some attention to the cable running from the headshell to the base, where it merges into a very flexible cinch or XLR line. Although it is very flexible when it bends, the cable actually does offer at least some resistance. Carefully bending it into shape can result in some subtle improvements in sound, translating into a more fluid and free playback. Don't worry—it doesn't have to fit perfectly right at the start. Instead, it can be improved as you go.

In its standard design, the TT5 cannot be moved above the turntable and you have to navigate the record through the gap. I don't see any real problem if you're very careful with it, but I don't want to imagine the results if the pickup inadvertently floated over the turntable or you were a little heavy-handed or overzealous with the record. Oops, too late. Clearaudio sells a swing base as an accessory for any clumsy or anxious folk out there. It replaces the standard tonearm base and, as the name clearly suggests, can be turned so you can pivot the TT5 from the record like a radial arm. It does involve an extra maneuver with your hands, but it makes the whole process safer.

When it comes to the right pickup for tangential arms, opinions are divided. I think this is due more to the software than the hardware.

With even only slightly warped records, a MM system with a high level of compliance has the edge. But if you are using level, clean discs, more expensive MC pickup cartridges with low stylus compliance usually deliver higher resolution. The TT5 worked fine with all the cartridges used in the test but clearly worked better with some more than others: The MC Essence (*FIDELITY Magazin* 2/2016) from the same company was a fantastic match; the Concept MC, from which it is derived, presumably provides a similarly good result. In conclusion, and taking the price into consideration, it's an even better match than the more expensive but also excellent Da Vinci, although it's more smoothly suspended than the Essence. In the TT5, Clearaudio's oversampler failed to reach its full potential. Maybe the extra weight of the Essence had something to do with it; that's a presumption, however, just as is saying the lower output voltage of the Quintet Bronze (*FIDELITY Magazin* 4/2014) is responsible for making me feel the 2M Black was a tad better in the TT5. Both Ortofon systems have been locked in a riveting head-to-head competition for my affection for almost two years now, yet I still don't have a real preference. In arms such as the Mørch DP-8 (*FIDELITY Magazin* ▶



4/2015), which support extreme high-resolution and high-definition, the Quintet is a nose ahead in most cases. In arms that produce a more heavily colorful sound, such as the Thorens TP92 (FIDELITY Magazin 5/2015), the 2M Black is able to stand out by demonstrating a certain spirited enthusiasm and colorfulness. Despite that, it's hard to make any clear predictions what cartridge would be best:

Although the TT5 is markedly neutral and tends toward slender playback, it sounds wonderfully balanced and captivatingly thrilling when combined with Ortofon's MM. The fact that combining the Audio Technica 50ANV with the TTF also does not quite achieve the openness as, for example, when using the Brinkmann 12.1 supports my constructed argument here about the output voltage. Regardless of the large selection of cartridges for use with the TT5, let me try to present the TT5's tone quality in some detail. The words "digital recording" appear on the cover of *Passion, Grace & Fire*, but it's an unnecessary statement since you can clearly hear it for yourself. The album recorded by

Paco de Lucía, John McLaughlin and Al Di Meola was released two years after the famous *Friday Night in San Francisco* album and presents the exceptional guitarists in a competitive spirit. Locked in a breakneck race over both sides of the vinyl, the three let you clearly infer their autoerotic tendencies. But interpretation is not the job of the TT5. It is the model of neutrality and accurately juxtaposes the musicians against one another. It makes light work of keeping pace with the insane tempo while also delivering a natural portrayal of the very essence of the acoustic guitars despite the undeniable sharpness of the recording. Using the DP-8 to listen to the same record, we hear McLaughlin resort to using his elbows in the middle of it. The maestro of all genres fights his way into the spotlight, broadening the stage; his compatriots move a little farther from the loudspeaker. Willie Nelson's *Yesterday's Wine* is similarly overshadowed by more famous albums, but sounds warmer, with deeper three dimensionality; in contrast, the three guitarists play as if standing in front of a blank canvas. Sufficient reverberation under

Nelson's voice gives "In God's Eyes" the impressiveness that enables run-of-the-mill pearls of wisdom to transform into profound knowledge. The TT5 resists the softened, Nashville-style production. It is not lulled but instead remains alert, emphasizing contours even if the music—the next track is Family Bible—gets artistically out of hand. The Clearaudio TT5 sounds, as I expect of a tangential arm, very clean, neat and neutral, and demonstrates clarity, accuracy and a clear line. Its handling and workmanship are definitely impressive, especially with the optional swing base. Its reasonable price alone makes it an exceptional purchase. ■

#### Tonearm

##### Clearaudio TT5

**Functional principle:** Tangential pickup | **Drive:** Mechanical | **Finishes:** Aluminum black or silver with fixed cable (cinch or XLR) | **Special features:** resonance-optimized chassis construction; highly precise, extremely smooth-operating, dry-running ball bearings; swing base (optional accessory) | **Weight:** 560 g (aluminum clamping ring 60 g) | **Dimensions (W/D/H):** 20/14/15 cm | **Warranty period:** Five years | **Price:** €2,000

**Clearaudio electronic GmbH | Spardorferstr. 150 | 91054 Erlangen, Germany | Phone +49 1805 059595 | [www.clearaudio.de](http://www.clearaudio.de)** ▶



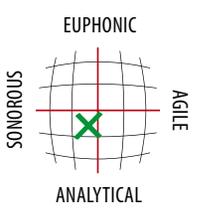
## THE TECHNOLOGY BEHIND THE TT5

Before a glossy vinyl record slides out of the lined record sleeve, the disc must be cut. At the start of this process, the cut is in a lacquer or copper foil using a tangentially (that is, at a 90-degree angle over the entire side) guided cutting stylus. A radial tonearm cannot, however, adopt a straight path over the disc. It always depicts a semicircle (Thales circle), which has the result that the cartridge reads a maximum of two points of a disc side, the zero points, in exactly the same direction the groove was cut. At all other points there is a variable tracking angle error—some people also call it

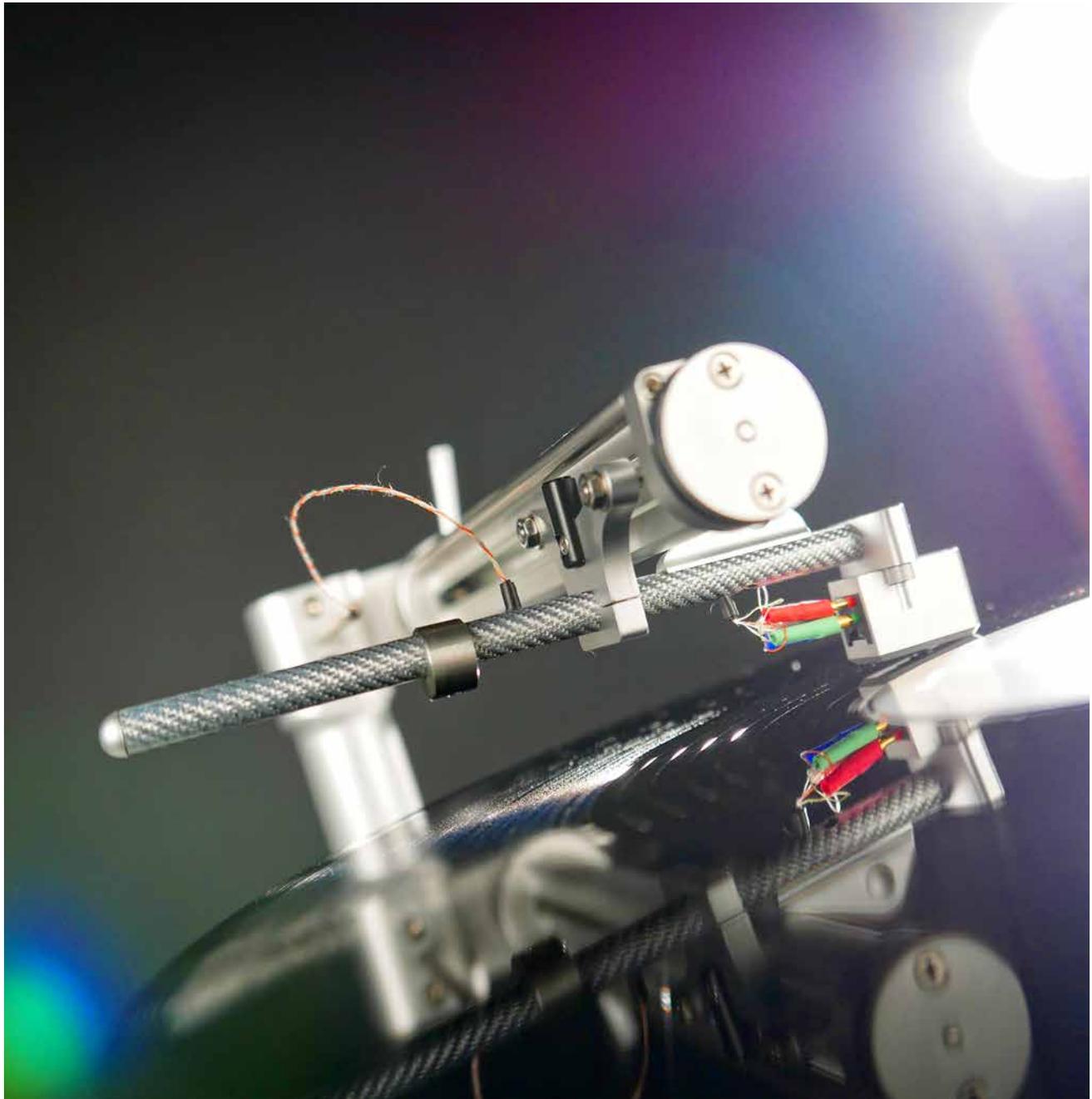
the “tracking error angle,” but it means the same thing. In theory, therefore, there is a greater risk of distortion. In practice, however, pivot tonearms work very well. The latest analog developments increasingly call into question just how much of an influence the slightest malpositioning of the stylus really has. Tangential arm owners do not, however, have to worry about this exhausting discussion as it no longer affects them. With a tangential tonearm, the angle of the pickup is always in sync with that of the cutting stylus. Logically speaking, there’s no competition. ►

**Clearaudio TT5**  
A puristic, easy to use linear tracking tonearm—definitively a best buy.

© FIDELITY/Aggagame



CHALLENGING =  A component is 100% intuitive if you can exploit its potential to the full intuitively.  
INTUITIVE = 





## Totally reengineered

Bowers & Wilkins believes the 800 D3 is the best series speaker it has built in its over 50-year history. What is immediately apparent is the difference in size between the woofer cabinet and the two woofers in the new 800 D3 and 802 D3. The 800 D3 is equipped with two 250-millimeter Aerofoil cone woofers. Somewhat smaller, the 802 D3 has two 200-millimeter Aerofoil cone woofers. But the 800 D3 has also been totally reengineered—even where it's not immediately apparent, boasting smaller dustcaps, for example, and crossovers with optimized components. Available since July 2016, a pair of 800 D3 speakers costs €30,000.

[www.bowers-wilkins.com](http://www.bowers-wilkins.com)

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# BROWSER

## Nº 02

## Closer to the action

Drawing on 54 years of analog research, Audio Technica has unveiled one of the most interesting turntable cartridges of all time. The AT-ART1000 features a moving coil that has been placed directly on top of the stylus tip on the boron cantilever instead of at the end. Audio Technica says the entirely handmade cartridge has been equipped with a “direct power” system. Innovation of this kind does, however, have its price: in this case, €5,200.

[www.eu.audio-technica.com](http://www.eu.audio-technica.com)



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# BROWSER Nº 02



## Dynaudio has new Contours

The speakers in Dynaudio's Contour series are probably among the most popular in the world. At the 2016 HIGH END exhibition in Munich, several completely reengineered models were unveiled that could serve to enhance the company's reputation. They boast new, optimized chassis with aluminum voice coils; carefully selected crossover components; and solid aluminum front baffles. Three pairs of speakers are available (Contour 20, 30 and 60) for prices between €4,500 and €9,000 plus the dedicated center channel Contour 25C speaker for €3,250.

[www.dynaudio.com](http://www.dynaudio.com)

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# BROWSER N° 02

## Pure dipole

The new Master Line Source 2 speakers from Piega claim to give listeners more positioning freedom than other conventional dipole models. Sound distribution through lamellae at the rear (Piega refers to this as an acoustic lens) behind the mid-range and tweeter ribbons means the speakers can even be positioned relatively close to a wall. Like its renowned predecessor, the Master Line Source, the MLS 2 also uses an approach based on one symmetrical line source with four dipole ribbons and two active bass drivers in a massive aluminum enclosure. Two rear-facing passive membranes provide additional bass support.

[www.piega.ch](http://www.piega.ch)

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# BROWSER N° 02

## Anniversary turntable from ELAC

ELAC is celebrating its 90th birthday by launching a new version of its legendary Miracord turntable. Dubbed the Miracord 90 Anniversary, the Kiel-based company's latest creation is an attractive but chunky turntable with exquisite workmanship. It features a 5.5-kilogram aluminum platter driven by a double-decoupled motor and has a carbon-fiber tonearm with a custom pickup developed in cooperation with Audio Technica. Available in the fall, the Miracord 90 Anniversary will cost around €2,000.

[www.elac.com](http://www.elac.com)

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Luxman D-05u

# HOOKED ON

By Jochen Reinecke. Photos: Ingo Schulz, Manufacturer



Seven years for a "u" —not bad.  
Luxman's D-05 CD/SACD player, launched in  
2009, has been upgraded and is now called D-05u.  
But what's evident is that much, much more than just  
a letter has been changed.





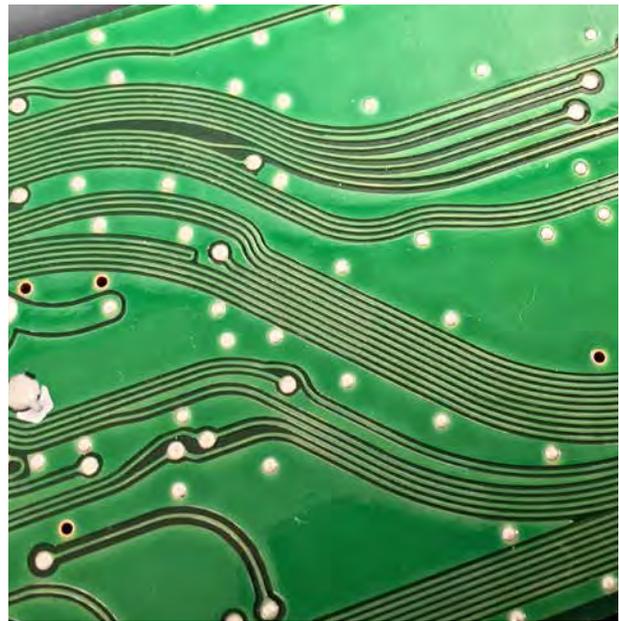
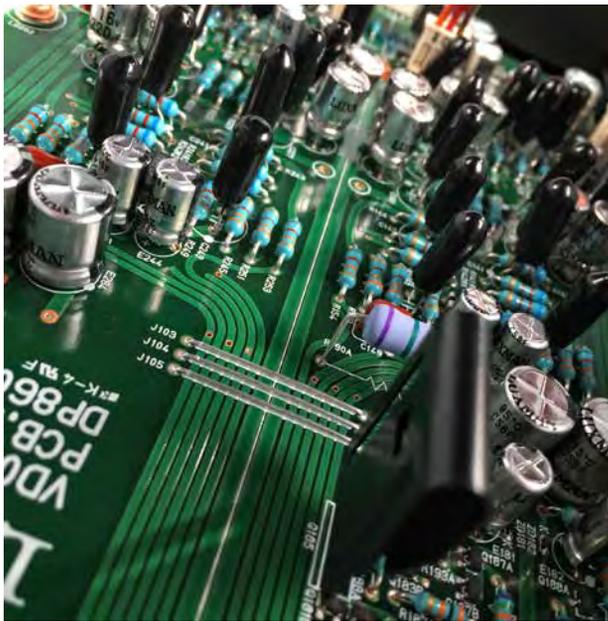
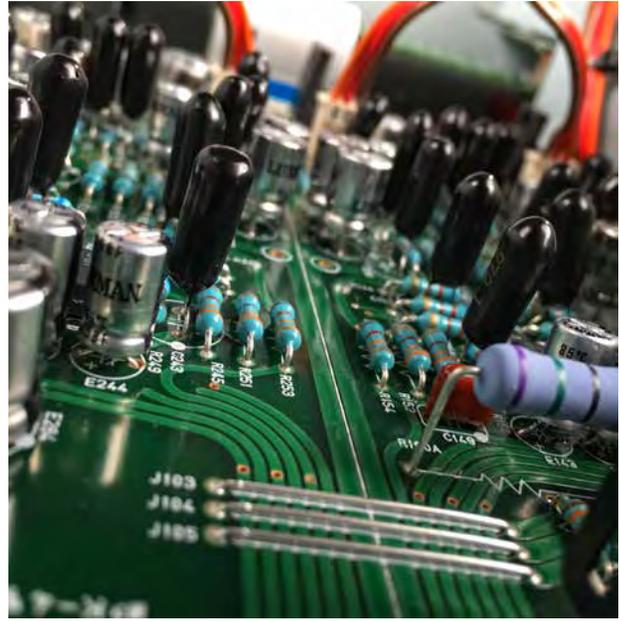
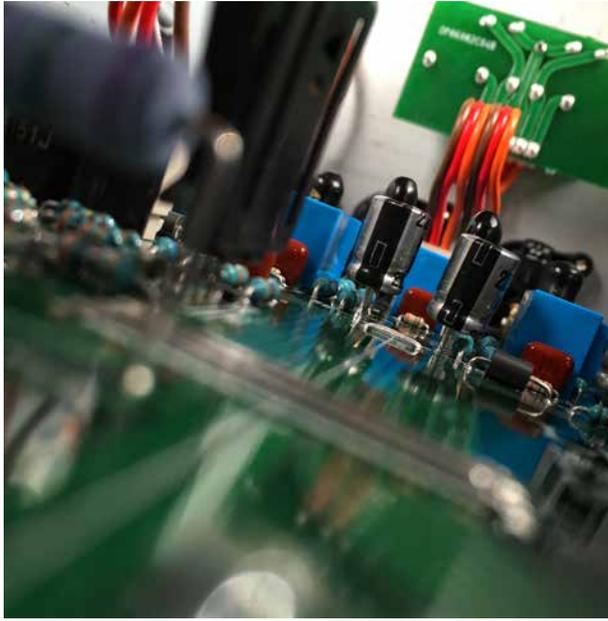
\_\_\_\_\_ Sometimes when I indulge in a bit of whistle wetting in dives and taverns during an evening spent with other fine hacks from the fraternity, they enviously mutter something like this to me: "Turned your hobby into your job." Or: "Must be great writing about hi-fi and earning money for doing it." But all I can say is: What would happen if you sent a cocaine addict the best crystalline substance every six weeks and then requested the person to return the drug to the sender after testing it? Hi-fi journalism as a means of earning a living—raucous laughter all round! And your costs keep on spiraling because you keep on wanting more, more, more!

That applies, in particular, to the latest offering from Luxman: the D-05u—a CD player, SACD player and DAC all rolled into one. I only returned it reluctantly and grudgingly to the editorial team, not just because of its weight, but especially because of the great sound it produced.

It is the designated successor to the D-05, but this redesign includes various features that have been

radically changed. The most important innovation involves the D/A converter. Instead of using the proven PCM1792A from Texas Instruments, the D-05u features the PCM1795 for the first time—in fact, in dual configuration. It's not exactly a newcomer either, having been unveiled by Texas Instruments in 2009. Its analog section more or less corresponds to that of the 1792, yet its digital interpolation filter is 32-bit capable. So while the D-05 utilizes a 24-bit chip, the D-05u sports all of two 32-bit chips. Luxman's engineers have calculated that this detail will not only optimize channel separation but also allow for internal oversampling up to 384 kHz. Incidentally, as far as reproduction is concerned, the willing listener has a choice between two PCM filters and two analog transversal filters for SACD and DSD modes. So many numbers, so many letters, isn't that just awful? Let's focus on more fundamental issues.

The wonderfully tidy front panel design! And the workmanship! The lucky owner only has to heave just a shade under 15 kilograms onto their rack. ▶



Haptic quality is nothing less than superb: Heavy and solid, a whopper—a humdinger—of a CD player. The disc tray extends almost silently; it seems so sturdy, you could presumably place a half-liter bottle of your favorite brew on it and it wouldn't bend. It's part of a playback mechanism developed by Luxman itself that goes by the unwieldy name of Luxman Original Disc Transportation Mechanism. The drive is located in a double enclosure, which is intended to dampen vibrations effectively—and the D-05u is indeed one of those players that operates almost silently. You can't hear any chirping or any humming noise from your listening position.

By the way, what is also elegant is not only the quite visually appealing remote control with an all-metal housing that is a joy to hold, so is the monochrome dot-matrix display. It not only looks ageless, the display is also amazingly easy to read from a distance of several meters. What is not quite so elegant, one might quibble, is the absence of a headphone port. On the other hand: anybody who shops in this price category and regularly uses headphones presumably owns his or her own headphone amp in any case. A quick glance at the rear panel: It is easy to connect with the D-05u. Besides one analog RCA and one XLR output terminal, the player features three ▶

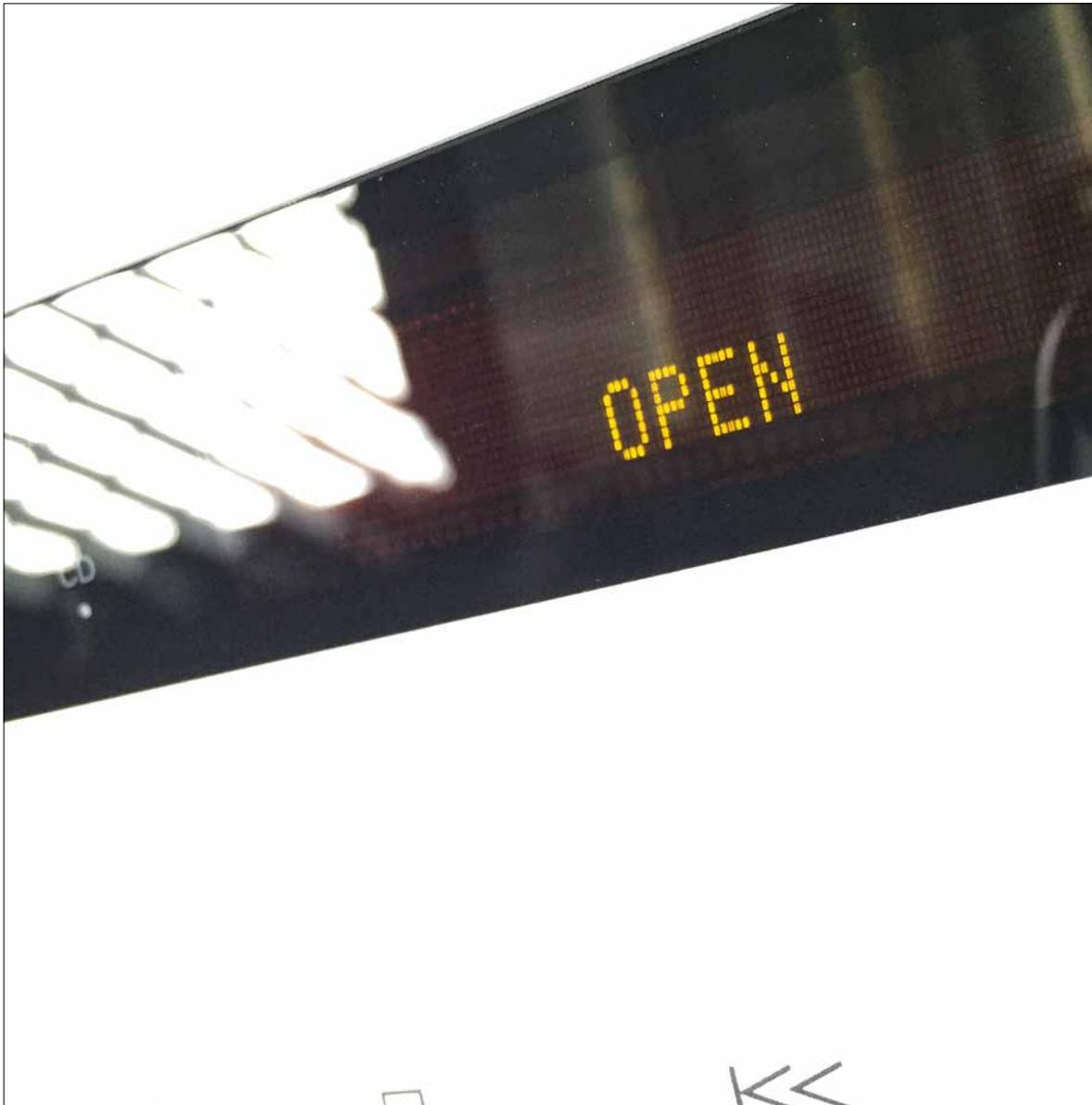
What is provided in the way of three-dimensionality, magnitude and transparency when playing high-resolution material is absolutely unique.

digital input terminals (USB, optical audio, coaxial) and two digital output terminals (optical audio, coaxial). That is laudable and provides a certain level of investment security because it means the D-05u also functions as a DAC or pure CD drive as needed. Now let's get down to some listening. The reviewer browses the CD collection and briefly pauses at Radiohead's *Kid A* album. Oh well, why not? Simply play the first few bars of the first track, "Everything in Its Right Place." Jaw drops and stays there. Why? Well, now. Even if the editor is already provocatively brandishing his red pen for what I'm about to say, I'll still say it anyway: The D-05u suddenly serves me this track's soul, its essence, on a silver tray. Head on. The less squeamish occasionally like to describe this track as a cacophony. An electronic bass drum, stubbornly pounding away, provides the rhythm. Muffled synthesizer chords from Jonny Greenwood's storeroom of sounds are wafting about to the left, Thom Yorke is wailing away in the center, while on the right all

this lamentation darts twofold, partially backward, partially forward, partially high-pitched about your ears. It's as if somebody has stripped down an antique Echolette and reassembled it incorrectly. Right on the boundaries of the atonal, pure sound mush when you first listen to it. But: There is method to this madness. It follows a clear concept. The synthesizer's analog filters continue to get turned up subtly, more and more treble continues to enter the sound pattern—and after a few minutes the track dissipates into a major chord of crystal clarity. A track that pushes and shoves its way forward. And the D-05u is able to mirror this very same pushing and showing in the listener who seeks a cathartic place of refuge. Instead of sitting there helplessly surrendering to an ear bashing, you look forward, spellbound with excitement, to this deliverance with a D-05u in the room. The tax return that still needs to be completed, the dishwasher that needs to be emptied, the lasagna in the oven, the lady visitor who is going to ring the doorbell in 10 ▶

Clarity, honesty and a no-compromise attitude in nearly all respects





minutes—all forgotten, out of the picture, they just don't matter. That is a really major achievement. But how does the Luxman player do that? I believe it comes down to its clarity, honesty and no-compromise attitude in nearly all respects. In terms of tonality, it can draw on an embarrassment of riches. Bases are deep and powerful; they have clarity and structure. Midrange tones glisten in a full blaze of color and trebles are crisp, have perfect resolution and are "à point" like a good entrecôte—neither too bright nor too shadowy, just exactly as delivered by the recording. The same applies to dynamics. When the synthesizer steps up the volume and it's pushing at the end of the track, the increasing compression is then passed on without any dynamic or temporal delay. But

the standout talent is its three-dimensionality. Seldom have I heard such an explicit and absolute separation of acoustic sources; and just as seldom do you listen to such substantial and realistic virtual midrange tones. Let's not forget we're talking Red Book standard in audio CD terms. One's state of bliss increases when moving on to the next level—that is, listening to an SACD. During the final movement of Mahler's Symphony No. 3, the listener is able to approach a state of transcendence. The composer leaves the first 50 bars exclusively in the hands of the string section to let an utter sense of wellbeing wash over the listener—almost Anton Bruckner-style. That's until the first piercing wind instruments enter the fray, beaming the first demons into a world in soft focus. ▶



One's state of bliss increases on going to the next level, i.e. listening to an SACD.



#### ACCOMPANYING EQUIPMENT

**Digital sources:** C.E.C. CD 5, iPod Classic 5 (160GB) with Pro-Ject Dock Box S Digital, Notebook with Foobar and Logitech Squeezebox-Server | **DAC:** B.M.C. PureDac | **Record player:** Rega RP-1 with Ortofon Quintet Red | **Phono pre-amplifier:** Pro-Ject Phono Box MM | **Output amplifier:** Audreal MS-3 | **Loudspeakers:** Tannoy Turnberry Gold Reference, Quadral Rondo, Nubert nuBox 101 | **Cables:** Goldkabel Profi (NF), Oehlbach XXL Series 7 Mk II (digital, coaxial), Oehlbach XXL Series 80 (digital, optical audio), Ortofon SPK 500 (LS), Real Cable OFC 400 (LS)

The effect, the sense of inclusion, this player delivers is difficult to express in words, therefore let me put it another way. Actually, I just wanted to listen in for the first couple of minutes. But I ended up taking in the full 26-minute trounce—right up to the furious finale with its powerful major conclusion. That is serious listening pleasure.

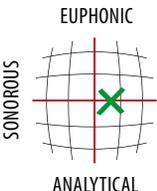
One more thing deserves comment. The D-05u does not gloss over things. That's because the SACD's higher resolution, as we all know, not only captures more three-dimensionality, more play in the trebles, more fine detail, but also picks up interference like the mild rushing sound of the pre-amp when miking, the inevitable coughing in the audience or even occasionally a minor recording distortion if the kettle drums are

banged too fiercely. The D-05u provides that, too. In for a penny, in for a pound—but that's how it should be with equipment in this price category.

Anybody who activates the internal DAC from outside is also in for a very pleasant surprise. Alert readers may perhaps recall that I was recently very taken with the C.E.C. CD5, and that I purchased it after the test. This, too, features a superb D/A stage (with Sabre chip set), meaning I also use it now as a reference DAC.

The Luxman D-05u, on the other hand, actually ups its game in terms of quality, first by achieving an even better spatial separation of acoustic sources and then with the bass. The latter really does seem to deepen substantially without coming across as exaggerated or overemphasized. ▶

**Luxman D-05u**  
 With normal CDs it's an emotion generator, with SACDs or high-res files from a computer it gets even better. Thoroughly genuine, incorruptible and uncomplicated Japanese quality.



CHALLENGING =  A component is 100% intuitive if you can exploit its potential to the full intuitively.  
 INTUITIVE = 

© FIDELITY Magazine

If you want to exploit the D-05u's potential to its fullest, you should connect it to a computer over a USB port. What is provided in the way of three-dimensionality, magnitude and transparency when playing high-resolution material is absolutely one of a kind. Take, for example, the brand new remaster of John Coltrane's *Soultrane* in 96kHz format from Highres-audio.com. A really good job was done here, because the recording was spatially awesome in and of itself, but suffered a little from hissing trebles and a dull bass in places. In this format, converted over the D-05u, it now sounds really clear in terms of tonality, and, above all, explosively dynamic—in a positive sense. This makes hard bop fun to listen to—a vitalizing blend of breakneck drum grooves, in-your-face saxophone and effervescent piano play.

What's left after your listening session?

Positive, straight-up exhaustion! The Luxman D-05u lets its owners share in the thrills, suffering and joys of audio indulgence—it plays incorruptibly but still delivers pure emotion. Omedetōgozaimasu! (Congratulations!) ■

#### SACD/CD Player/DAC

##### Luxman D-05u

**Input terminals:** 2 x S/PDIF (coaxial, optical audio), 1 x USB (max. 32 bit/384 kHz and DSD 128/5.6) | **Output terminals (analog):** symmetrical (XLR), asymmetrical (RCA) | **Output terminals (digital):** coaxial, optical audio | **Digital filters:** 2 x PCM, 2 x DSD | **Dimensions (W/H/D):** 44/13.5/41 cm | **Weight:** 15 kg | **Color:** Silver | **Warranty period:** 2 years | **Price:** 4,990 €

**IAD Audio | Johann-Georg-Halske-Straße 11 | D-41352 Korschenbroich | Phone +49 (0)2161 61783-0 | [www.iad-gmbh.de](http://www.iad-gmbh.de)**





T+A PA 2500 R/MP 2000 R/G 2000 R

# PEACE AT LAST

By Stefan Gawlick. Photos: Ingo Schulz



No matter what type of music is played, the delicate and broad overtone range is particularly appealing.



can already hear the outcry. Peace? What's he talking about? Music is meant to be exciting! We want stimulation not tranquility! How can this writer praise peace above all else? That's insane! And yet, that's exactly what I'm doing. When you start to think about it rationally, it's not insane at all, simply a matter of priorities. When my hi-fi enthusiasm first began to take form, equipment from T+A wouldn't have been my initial choice: too sleek, too perfect, too few options to play around with. In those days, the first thing I did when a new CD player arrived was stabilize the rattling lid with bitumen pads, replace the fuse, and maybe even swap the little cable between the output stage and the jacks. If I heard about some replacement feet that might be better for my equipment, I'd try them out immediately. And sometime later I'd find myself soldering in some of that really fine silver cable.

But I don't get excited about that sort of thing any more. This is partly due to the fact that most equipment is simply better these days. The other reason is that tinkering around with gear this way—regardless of what you might actually gain from it—gets in the way of the music itself. It's a distraction. And, of course, there's the additional possibility that some of this "fine-tuning" might not be completely legal ... But if the equipment is more important to you than the music you play with it, we're obviously not on the same wave length. In this case, maybe you should just move on to the next article. ▶

The quadruple PCM 179 converters from Texas Instruments (32 bit/192 kHz) already produce a balanced signal that is further refined by the MP 2000 R.



## It's simple

For a real music lover, the ideal hi-fi system does the following: It attempts to recreate as much detail from the recorded material as possible without adding anything of its own all the while trying to produce the same performance quality for the full gamut of music styles and their different needs. What's more—and this shouldn't be underestimated—it simply needs to work! You don't need to warm it up for hours beforehand; you don't need to furnish your room around it; you don't need to spend years looking for cables that will coax out some of those hidden qualities (until, for example, you chance on a suitable adapter for those nonstandard input and output impedances on your chosen piece of equipment). No, none of that. With the ideal hi-fi system, all you need to do is place it in a suitable location, connect everything up, and enjoy the music. It's simple. For me at least, this is the dream.

This is why I didn't roll out the red carpet for the PA 2500 R amplifier and the MP 2000 R CD player, both from T+A. At the start of my test, I simply placed them on the floor between the speakers, hooked them up with the first cables I found, switched them on and starting listening. It's simple. Despite not configuring anything at all, the sound was really good. So good in fact, that I listened for longer than I'd planned. I really wanted to hear the end of Dmitri Shostakovich's String Quartet No. 8. If that wasn't a positive sign that things were going well... ▶



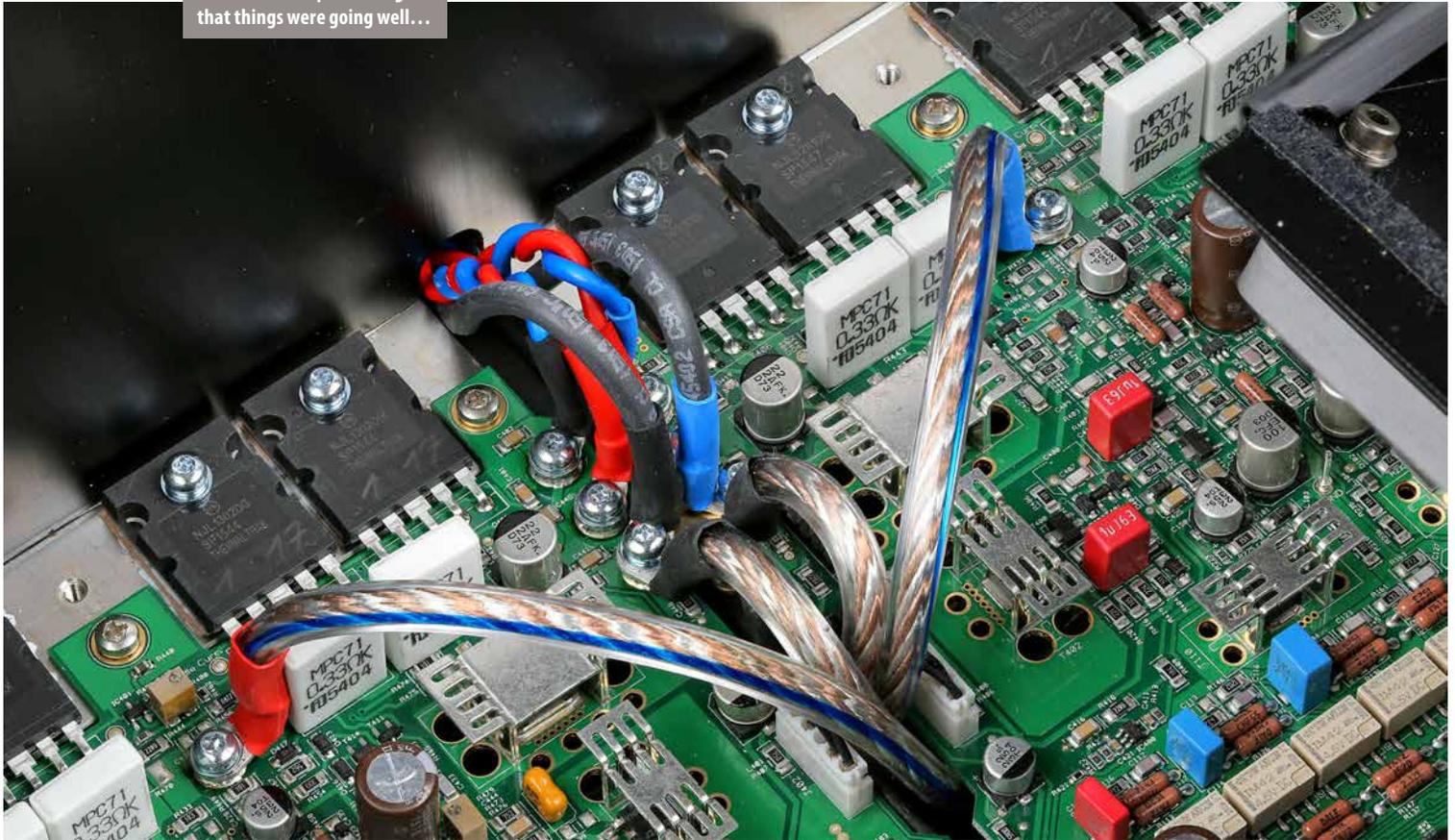
I wouldn't hesitate a moment to use a PA 2500 R as an amplifier in a mastering studio!

## Certain devotees

The PA 2500 R integrated amplifier isn't, of course, the right choice of equipment for newcomers who love to tinker around—the price alone rules it out. The weight is also a bit of a riddle. At 14.5 kilos, it doesn't seem weighty enough for certain high-end devotees to take seriously—it just isn't the heavyweight contender they tend to go for. The riposte lies in a very cleverly designed switched-mode power supply. It has a dual mono design that is amply filtered across all stages and delivers 1,200 watts to the outputs. This is more than sufficient for an amplifier that is officially specified to deliver 2 x 280 watts into four ohms. The benefits, however, are threefold: There's simply no humming or hissing at all. The PA 2500 R also couldn't care less how demanding the connected speakers are. And, of course, the capacitance of the speaker cable is irrelevant. This already addresses a few points on my list. The lucky owner of the PA 2500 R has a whole range of adjustable parameters at his or her disposal that all deserve an impartial assessment. The tone control, frowned on by many high-enders, can be finely adjusted over a number of menus and sub-menus.

This definitely results in better performance than a directly playing amplifier in a room with really poor acoustics. Using only pretty modest resources (a convenient interface, a measurement microphone, free analyzer software, and pink noise), you can avoid “guesstimates” and correct the worst distortions caused by the room or speaker. For hardliners, of course, this function can be completely bypassed. Apart from this, the PA 2500 R is a deliberately unpretentious unit, with high-quality connectors on the back panel and an Ethernet port that's exclusively available for communication between devices. There's no integrated streaming module. ▶

If that wasn't a positive sign  
that things were going well...



## An all-rounder?

But a streaming module is available in the MP 2000 R. Referred to previously in this text as a simple CD player, this component is in actual fact a hi-res DAC with CD drive, streaming module, and DAB tuner—a genuine specimen of the new class of multisource players. Connections to networks or the Internet can be set up using either WLAN or LAN, and mobile devices can also be linked up over Bluetooth. Other digital sources can use a native USB port as well as coax or optical inputs. The dual XLR outputs are a whole lot more than just fancy, high-end decoration: The quadruple PCM 179 converters from Texas Instruments (32 bit/192 kHz) already produce a balanced signal that is further refined by the MP 2000 R. If the signal received at the digital inputs has timing errors, it is completely rebuilt before being passed on to the second stage. Here, it is filtered again to eliminate further jitter before reaching the converters.

In the MP 2000 R, there are four separate digital filters to handle the usual pre- and post-ringing. Filter one has a strict linear frequency response. With only limited capping of pre- and post-ringing, I enjoy the striking performance and the tight bass. Neither filter two, designed to considerably reduce time domain errors, nor filter three, intended to generate an “analog” sound using digital means, are really my thing. Filter four, however, thoroughly eliminates all time domain errors. Thanks to its spaciousness and an atmospheric compactness that’s somewhat hard to describe, this filter became my absolute favorite after a few hours.

Connecting up to desired media is simple and fast: attach the unit to the computer using a USB cable, click on the T+A device (should be automatically visible) in the system settings, and get started. I had no problems using any of the players I tested—from iTunes, JRiver, and PureMusic to music directly derived from Magix’s DAW Sequoia.

Connecting to the network is equally straightforward. Using a LAN cable, you select the network drive and can immediately surf through your music files. You don’t even need a password (at least I didn’t).

Listening to Internet radio is just as easy. It’s simple. A dream to use. ▶



## Charm and supremacy

After all this, I finally placed both units on a proper rack. As speakers, I used pairs of Diapason Adamantes 25th, Spondor 3/5 SE, and Harbeth Monitor 30.1. As expected, there were no problems at all with any of these models. The compact Spondors place real demands on other equipment despite their small size. Combined with the T+A amplifier, however, they produced an unusually laid-back sound and showed great control response in spite of their limited sensitivity. Although they can sometimes sound brittle on coolish amplifiers, the Diapasons were supple and refined, too. Connected to the T+A, the Harbeths emit a wonderfully spacious resonance and individual sound events are minimally enlarged and presented in subtly differentiated colors—a superb combination for music lovers!

It seems the PA 2500 R shares much of its DNA with its older HV siblings, playing with the same fluidity and lack of harshness. No matter what type of music was played, the delicate and broad overtone range was particularly appealing, giving every piece an ethereal quality in addition to an uncompromising foundation. In terms of spatial performance, the amplifier found an excellent balance between studio-oriented correctness and playful ambiance, in the process enriching the obligatory objectivity with a spoonful of charm. This hint of extra pep is especially valuable for spicing up drab recordings or CDs from the digital stone age. But I definitely don't want to give you the impression that T+A has given itself over to euphony: I wouldn't hesitate a moment to use a PA 2500 R as an amplifier in a mastering studio! ▶

the PA 2500 R, MP 2000 R, and G 2000 R perform at least on par with the majority of high-end components



## Team player

Regardless of the source used, the MP 2000 R captivates with its tremendous attention to detail and a precision that reveals no trace of harshness—right down to the lowest ranges. For a device of this type, the CD drive is above all astoundingly steadfast in these lower regions. There are few other players that come correspondingly close to a benchmark device like the Mark Levinson 390S. But the T+A also comes with all the other network and USB options and is only half the price. All in all, a real bargain.

My test package was rounded out by the R Series turntable. The G 2000 R will appeal to many T+A customers and I'm not able to give it as much attention here as it deserves. It can be easily assembled, plus it has wonderfully smooth motion and a punchy, precise, and spatially expansive sound. Any extraneous noises made during playback also remain amazingly far in the background. Yes, this turntable really warrants

more attention. All the more so, because its integrated high-quality phono pre-amp means it can be connected up to any high-level input. But the other two T+A test units are so richly detailed that I've simply run out of space.

So, let's recap: Could these R Series units from T+A really constitute the ideal system? In my opinion, yes! Producing a sound that puts them close on the heels of their bigger siblings, the PA 2500 R, MP 2000 R, and G 2000 R perform at least on par with the majority of high-end components but without the same degree of neediness. They simply work. And you finally have time for the music! ▀ ▶

When my hi-fi enthusiasm first began to take form, equipment from T+A wouldn't have been my initial choice.



<p><b>T+A PA 2500 R</b> Studio-level qualities with a touch of glamor and a healthy dose of soft power. Thanks to technical excellence and a luxury configuration, a great example of an all-round amplifier.</p>		<p><b>T+A MP 2000 R</b> This versatile device has inherited the legendary sound DNA of its (even) bigger siblings, with very little difference between them. That should really answer all other questions.</p>		<p><b>T+A G 2000 R</b> Anyone serious about uniform design has to opt for the G model. Frequently underestimated, the turntable doesn't just boast excellent operation and sound, it also merges perfectly into the great R Series design.</p>	
<p>CHALLENGING =  INTUITIVE =  A component is 100% intuitive if you can exploit its potential to the full intuitively.</p>					





Could these R Series units from T+A really constitute the ideal system? In my opinion, yes!

#### Complete System

**T+A R Series 2000**

**Warranty period:** three years

**T+A PA 2500 R integrated amplifier**

**Power output (8/4/2 Ω):** 2 x 140/280/560 W | **Dimensions (W/H/D):** 46/16.5/41 cm | **Weight:** 14.5 kg | **Price:** €7,500

**T+A MP 2000 R Mk II multi-source player**

**Digital inputs:** 2 x coaxial, 2 x TosLink, 3 x USB | **Dimensions (W/H/D):** 46/8.2/40 cm | **Weight:** 8 kg | **Price:** €5,900

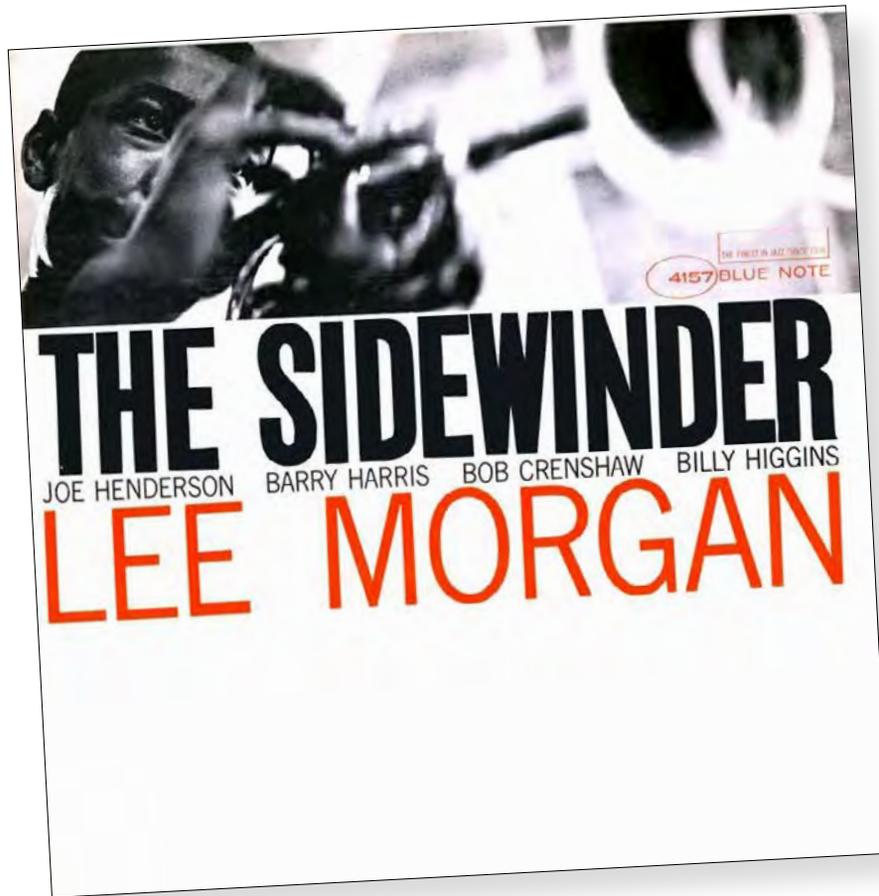
**T+A PA 2000 R turntable**

**Standard tonearm:** Rega | **Standard cartridge:** Ortofon 2M Bronze | **Options:** integrated phono equalizer (490 euros), Clearaudio Carbon 2 tonearm with MC2 system (1400 euros) | **Dimensions (W/H/D):** 46/16/38 cm | **Weight:** 14 kg | **Price:** €4,500

**T+A Elektroakustik GmbH | Planckstraße 9–11 | 32052 Herford, Germany | Phone +49 5221 76760 | [www.ta-hifi.com](http://www.ta-hifi.com)**

# THE TWO-COLOR LOOK

By Hans-Jürgen Schaal—Part I



Covering normally refers to songs being performed by other artists, but actual album covers attract their share of impersonators, too. Are these “covered covers” simply parodies, witty allusions or tributes or is there some kind of deeper meaning?

There’s a recurring figure in jazz history: the young, heroic trumpeter who suffered a tragic death much too early on in his career. Bubber Miley, Bix Beiderbecke, Bunny Berigan, Sonny Berman, Fats Navarro, Clifford Brown, Joe Gordon and Booker Little are all famous examples of this figure. Not to forget Lee Morgan, of course. Recording his first album at the age of 18, Morgan already seemed to have become a giant among modern trumpet players. His 1958 album *Candy* was probably the most mature ever recorded by a 19-year-old. Although drug abuse slowed his subsequent solo career somewhat, he regularly outshone all other colleagues in his sessions with Art Blakey. In 1963, Lee Morgan made a comeback as band leader on the Blue Note label—and what a comeback it was. *The Sidewinder* became the best-selling album Blue Note had ever released, and marked a real turning point.

The reason for this was the title track, or, more precisely, the rhythm of this track. It could be regarded as Swing or even Latin, but most interpreted it as a dance track with a funky eight-eighths groove. “The Sidewinder” marked the transition from gospel-inspired hard bop to soul-inspired hard bop. In essence, it’s simply a blues number with 24 measures to each chorus instead of the usual 12, plus a few playful breaks. Also released on two sides of a single record, the track quickly became a jukebox hit. This success enabled the album to peak at number 25 on the U.S. pop LP charts in early 1964. For the small, independent Blue

Note jazz label, things were never the same again—and it came under pressure by distributors to produce similar hits. The laid-back record business suddenly became a risky proposition. Reeling from this success, the producer Alfred Lion sold Blue Note to a pop record company in the following year. His co-founder Francis Wolff stayed with the label for a while longer until his stress-related death in 1971. Shortly afterwards, Lee Morgan himself, the trumpeting great, was shot dead on the street by his common-law wife. He was 33 years old.

Naturally enough, the 1964 album cover has become a Blue Note classic. The top third features a photo of the musician (Francis Wolff was the photographer)—a black and white picture stretching across the entire width of the cover. The central strip looks like a banner headline, with the name of the album and the musicians, in black and red. The lower third has been left completely white. Reid Miles was the designer of this and many other distinctive Blue Note covers in the 1950s. He developed the two-color look—four-color printing was expensive in those days. He came up with several pretty similar covers such as those for Stanley Turrentine (*Hustlin*, 1964), Bobby Hutcherson (*Stick-Up*, 1966), Cecil Taylor (*Conquistador*, 1966) and McCoy Tyner (*The Real McCoy*, 1967). But *The Sidewinder* always remained something special, a symbol of success and tragedy at the same time. And definitely a cover with a high recognition factor. ▶



## THE TWO-COLOR LOOK

Part II

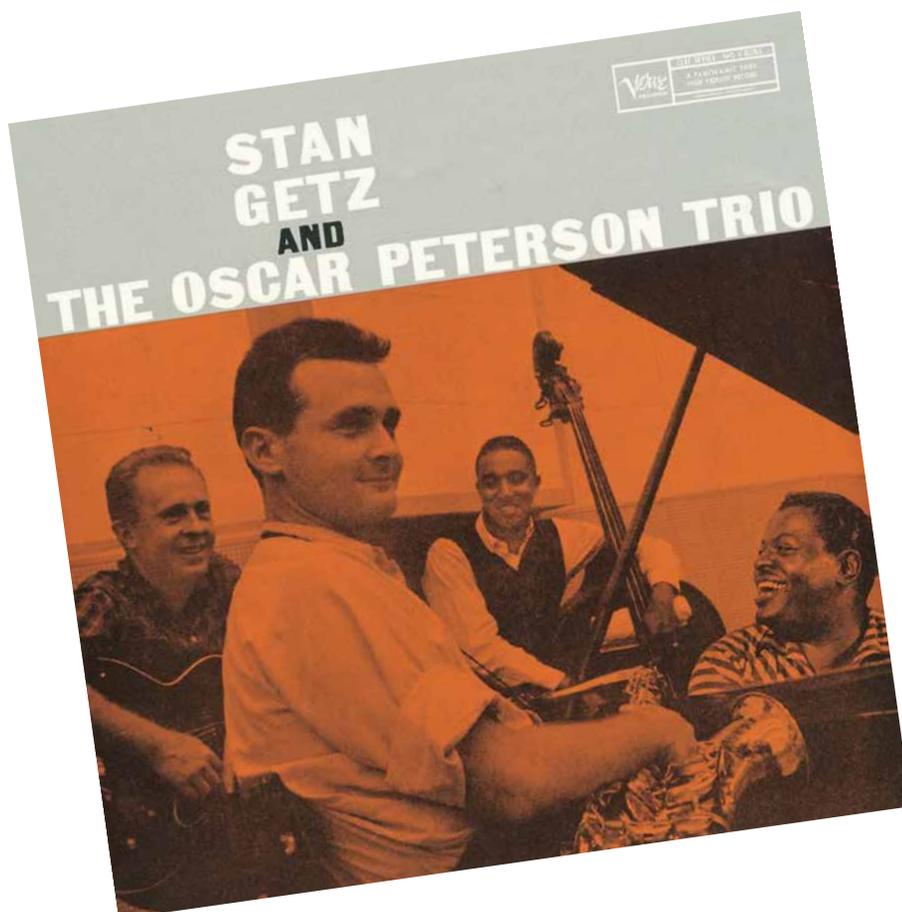
So it's no real surprise that Blue Note has subsequently used the cover (owned by several different companies in the meantime) as a model for a whole series of CDs. Between 2004 and 2006, eleven compilations were released in the *Sidewinder* design as part of the *Blue Note Plays* series—all tribute albums to great artists and containing cover versions from the Blue Note catalog. The artists who were honored in this way range from Cole Porter to Sting, and from Gershwin to Prince. To some extent, this choice of artists also determines the age and style of the compilations. The jazz versions of the Prince and Sting songs originate predominantly from the 1990s, and the Stevie Wonder, Burt Bacharach and Ray Charles compilations mainly from the 1970s. The last albums in the series (from 2006) are all dedicated to well-known standard jazz numbers, and dominated by the classical Blue Note sound of the late 1950s.

On *Blue Note Plays Gershwin*, for example. Instead of a photo of the musician, the cover shows the Houses of Parliament and Big Ben shrouded in London fog. In the foreground, there's a street lamp standing on Westminster Bridge. Gershwin fans, of course, will think immediately of

“A Foggy Day (In London Town)”, a Gershwin song from 1937. In this recording from 1961, alto saxophonist Lou Donaldson plays it at a pretty fast-moving pace, accompanied by electric organ, electric guitar and drums. In fact, there's quite a lot of organ and guitar on the entire album: there was presumably an electro fan involved. On the Lou Donaldson track, “Baby Face” Willette plays the organ; on other numbers it's Freddie Roach or Jimmy Smith. Guitarists Grant Green and Kenny Burrell both make two appearances on the album, once as band leader and once as sideman. Burrell's solo version of “But Not For Me” (1956) forms the centerpiece of the album, but he also plays on the first track “S Wonderful”, so taking us nicely back to our trumpet prodigy Lee Morgan. Morgan was 19 years old when he soloed on this studio recording from 1957. It took until the 1980s, however, before it was finally released by Japanese jazz enthusiasts. Here he is once more. The king of modern trumpet-playing, a youthful hero and a brilliant artist who came to a tragic end. ■

**Lee Morgan:** *The Sidewinder* (Blue Note BST 84175)

**Blue Note Plays Gershwin:** (Blue Note 946-3-49291-27)



Jazz is like a dense forest, where it's easy to overlook something important. Hans-Jürgen Schaal points out a few highlights of jazz history we may have missed.

1957

# STAN GETZ AND THE OSCAR PETERSON TRIO

Before the piano trio we are familiar with today (piano with double bass and drums) became the norm, pianists often teamed up in a different formation with double bass and rhythm guitar. Nat King Cole frequently played piano in such a formation, and Art Tatum for a while, along with Ahmad Jamal, the early Ray Charles and the great Oscar Peterson. In 1957, Peterson's drummerless trio was a nostalgic throwback to the days when small experimental swing bands played in cozy clubs. At the same time, however, it showed where the future lay: in the 70s, chamber jazz without a drummer came back into fashion—in the innovative duos and trios of the ECM artists, for example.

Herein lies the particular charm of this album: the soaring timelessness of a small band without a drummer. And Stan Getz's saxophone sound has a soaring quality as well, totally disembodied, floating and soft-toned—you can even hear the sound of the larger keys closing. His saxophone glides through the choruses as if it had lost all contact with the ground, in an irresistible and overwhelming

wind of rhythm. Getz couldn't have found any better companions to fly with: Oscar Peterson on piano, Ray Brown on double bass, Herb Ellis on guitar—all first-class artists in their own right.

The notes whizz by in the fast passages and swirl weightlessly in the slow pieces. But there's a light and natural mood to everything, occasionally with an elegance reminiscent of gypsy swing. This was the sound of chamber jazz in 1957—detached yet sophisticated, with old virtues but seeking new challenges. Brilliant pianist that he was, Oscar Peterson naturally sets off a few sensational keyboard fireworks. But he also steps back from time to time and lets the others shine in unaccustomed duo and trio passages. And then there's the blues, in two different tempos. Getz rarely played as vigorously as on this album, but coupled with this disembodied sound—an almost surreal contrast! Of all the records Stan Getz made in the 1950s, this is the most sprightly, the most ethereal, the most elegant. And definitely the finest. ■

Hans-Jürgen Schaal

# CAT LOVERS AND CIGAR BOXES

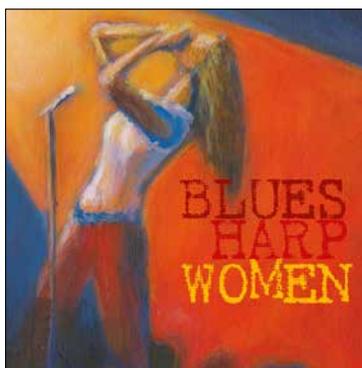
Soul Sisters, Blues Ladies, Gospel Queens and their new CDs—  
Blues Brother Winfried Dulisch discovers his female side.

\_\_\_\_\_In 1996, researchers in a working group on language and lexicography at the University of Essen came to the following verdict: “Blues is a sorrowful form of folk music stemming from North Americans of African origin.”—What is that all about? Blues is sorrowful? What led these linguists and lexicographers to this strange verdict in 1996?

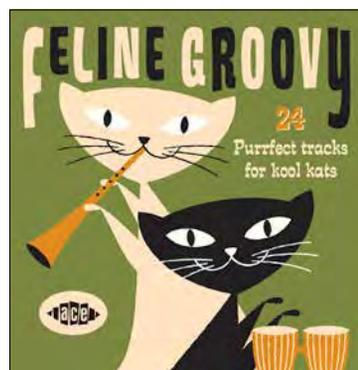
One excuse they might use is there was no Blues Caravan at the time. Every spring, it starts in Thuringia and winds its way through the rest of Germany, moving on to other European countries and then the USA in late summer. Since 2005, record producer Thomas Ruf has been putting the caravan together from the pool of artists on his Ruf Records label. And there’s definitely nothing sorrowful about these talented young blues performers!

In the past, the Blues Caravan seemed to be predominantly made up of young female artists in mini skirts playing electric guitars. But, in 2016, it’s headed up by three established “Blues Sisters”. After this tour, US singer Tasha Taylor will probably never have to repeat her well-practiced phrase: “Yes, I’m the daughter of Memphis soul trailblazer Johnnie Taylor.” The other “sisters” in this year’s R&B revue are the Canadian blues rock performer Layla Zoe and jazz vocalist Ina Forsman from Finland.

Various artists  
Blues Harp Women  
Label: Ruf/in-akustik  
Format: 2 CDs

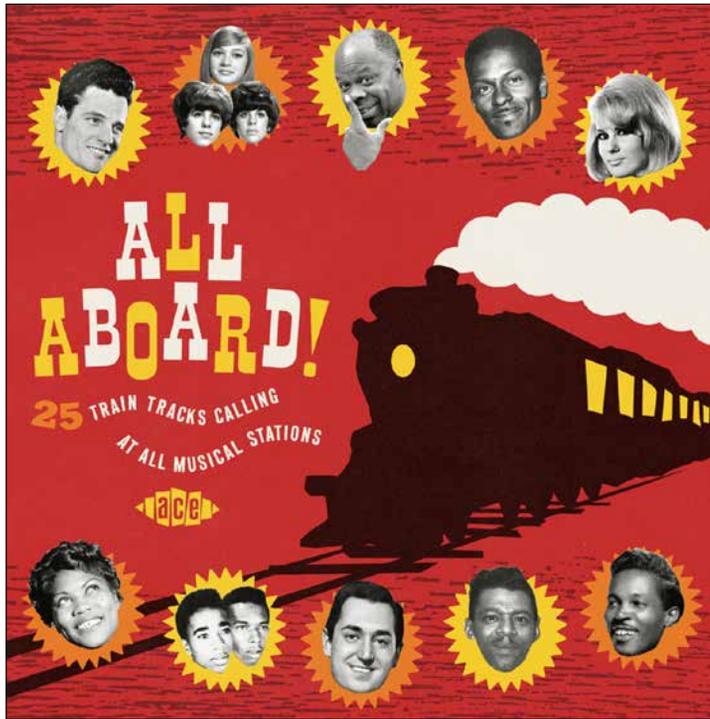


:: Female fans frequently tell Thomas Ruf that his “sisters” concept is pandering to a male, chauvinist public. Ruf Records is able to refute this accusation with its double CD *Blues Harp Women*. Among the 31 female blues harmonica players are well-known singers like Big Mama Thornton, who only use the “Mississippi saxophone” as a side show, but also real harp wizards as well. There’s no anthology this diverse that showcases male harmonica players. Although few of these female harp artists really make an impression, some of the accompanying guitarists are a joy to hear.



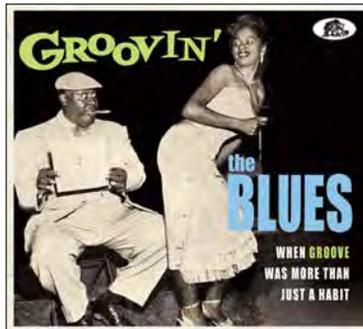
Various artists  
Feline Groovy—  
Purrfect Tracks For Kool Kats  
Label: Ace/Soulfood  
Format: 2 CDs

:: Ace Records continues to surprise its customers, and predominantly blues and soul fans, with neat compilations of familiar and as yet unpublished recordings. Practically every employee of the London label has already put an oldies CD together. Ace’s bestseller *Feline Groovy—Purrfect Tracks For Kool Kats* was compiled by in-house designer Vicki Fox. The cat lover searched through her record collection looking for blues, country and jazz tracks dedicated to felines. ▶



**Various artists**  
**All Aboard! Train Tracks Calling At All Musical Stations**  
 Label: Ace/Soulfood  
 Format: CD

:: Because Vicki Fox’s *Feline Groovy* was such a pleasant and easy-on-the-ear compilation, Ace boss Roger asked her to put together another CD. So she turned her attention to the topic of trains. Her compilation entitled *All Aboard! Train Tracks Calling At All Musical Stations* reveals the impact the rhythm of steam trains had on the development of blues and boogie—and eventually rock ’n’ roll, of course. Vicki Fox’s CD is also impressive proof that an oldies collection can be so much more than a repackaging of tired hits.



**Various artists**  
**Groovin’ The Blues**  
 Label: Bear Family  
 Format: CD

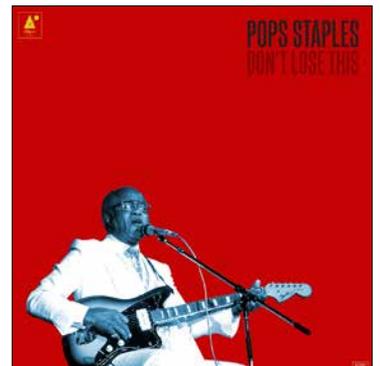
:: The compilation entitled *Groovin’ The Blues* rehabilitates the blues singers from Groove Records, the sub-label of the white RCA giant that targeted mainly African American record buyers. The Bear Family CD contains a broad repertoire of tracks from folk blues to boogie woogie piano to soulful ballads. But it was worth searching through the Groove archives for track 10 alone: blues crooner Little Tommy Brown gives such an emotional rendering of “Don’t Leave Me, Baby” that his flame probably went back to him immediately after hearing it.



**Various artists**  
**Rockin’ The Groove**  
 Label: Bear Family  
 Format: CD

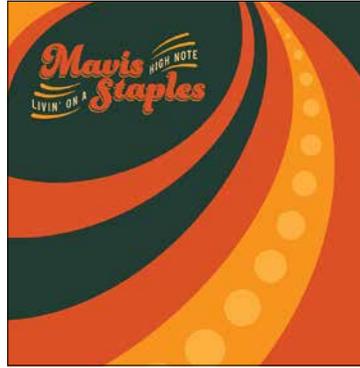
:: In commercial terms, however, the Groove artists didn’t stand a chance against their white RCA rival Elvis Presley—by 1957 the groove was over. Bear Family founder Richard Weize and his team also compiled the *Rockin’ The Groove* CD. The 35 tracks make it apparent, almost 60 years down the line, what a loss the deactivation of the Groove label was for white rock-’n’-roll fans as well.

:: “Don’t lose this”, said Gospel singer Pops Staples (1915–2000) to his daughter Mavis just before he died, and gave her ten demo tapes. In 2014, Marvis Staples got together with Jeff Tweedy, the singer of the alternative country band Wilco, to complete the song fragments. Her father was as important to gospel pop and soul music as Muddy Waters was to rhythm ’n’ blues. Pop Staples was an icon for black and white Americans, both as band leader of the Staple Singers and as a civil rights campaigner. ▶



**Pops Staples**  
**Don’t Lose This**  
 Label: Epit/Anti  
 Format: CD

**Mavis Staples**  
**Livin' on a High Note**  
 Label: Anti/Indigo  
 Format: CD



**Bonnie Raitt**  
**Dig In Deep**  
 Label: Redwing/ADA  
 Format: CD



**Fiona Boyes**  
**Box & Dice**  
 Label: Reference Recordings/Fenn  
 Format: CD

:: *Livin' on a High Note* enables Mavis Staples to move effortlessly from blues to gospel and from Americana to trash pop. She is still able to exude more euphoria and holy wrath than a lot of blues and soul singers half her age—not content to simply rest on her well-earned laurels as a gospel queen or wise old protest singer. Instead, Mavis Staples persuaded post-punk poet Nick Cave to write her a personal prayer for this compilation.

Elsewhere on the CD, she has the temerity to quote from her assassinated friend Martin Luther King. Guitarist Matt Ward brings a touch of musical provocation with a resounding country sound. In his role as producer, Ward deliberately employs low fidelity to artificially age the singer's voice. At least the listeners to this CD should therefore be aware that Marvis Staples is an amazing 76 years old.

:: The white blues guitarist and singer Bonnie Raitt has finally wised up to how she can cut herself a slice of the giant pop-rock cake. But she has paid a high price for it. Although her 20th studio album has the promising title *Dig In Deep*, it remains superficial with regard to the sound. Being mixed for a car stereo clientèle with dynamically constrained listening habits, this is no real surprise.

:: Fiona Boyes takes no prisoners. U.S. music journalists have nicknamed her “Bonnie Raitt’s evil twin”. But, as she proves in every track on *Box & Dice*, this is still a pretty weak comparison. What she conjures up on an electric cigar box with Fender neck sounds bolder and coarser than Keith Richards. Thanks to the excellent quality of the recording, she also proves that a voice can be smoky and elegant at the same time. Fiona Boyes has everything it takes to become a “grande dame” of white R&B. ■

Winfried Dulisch



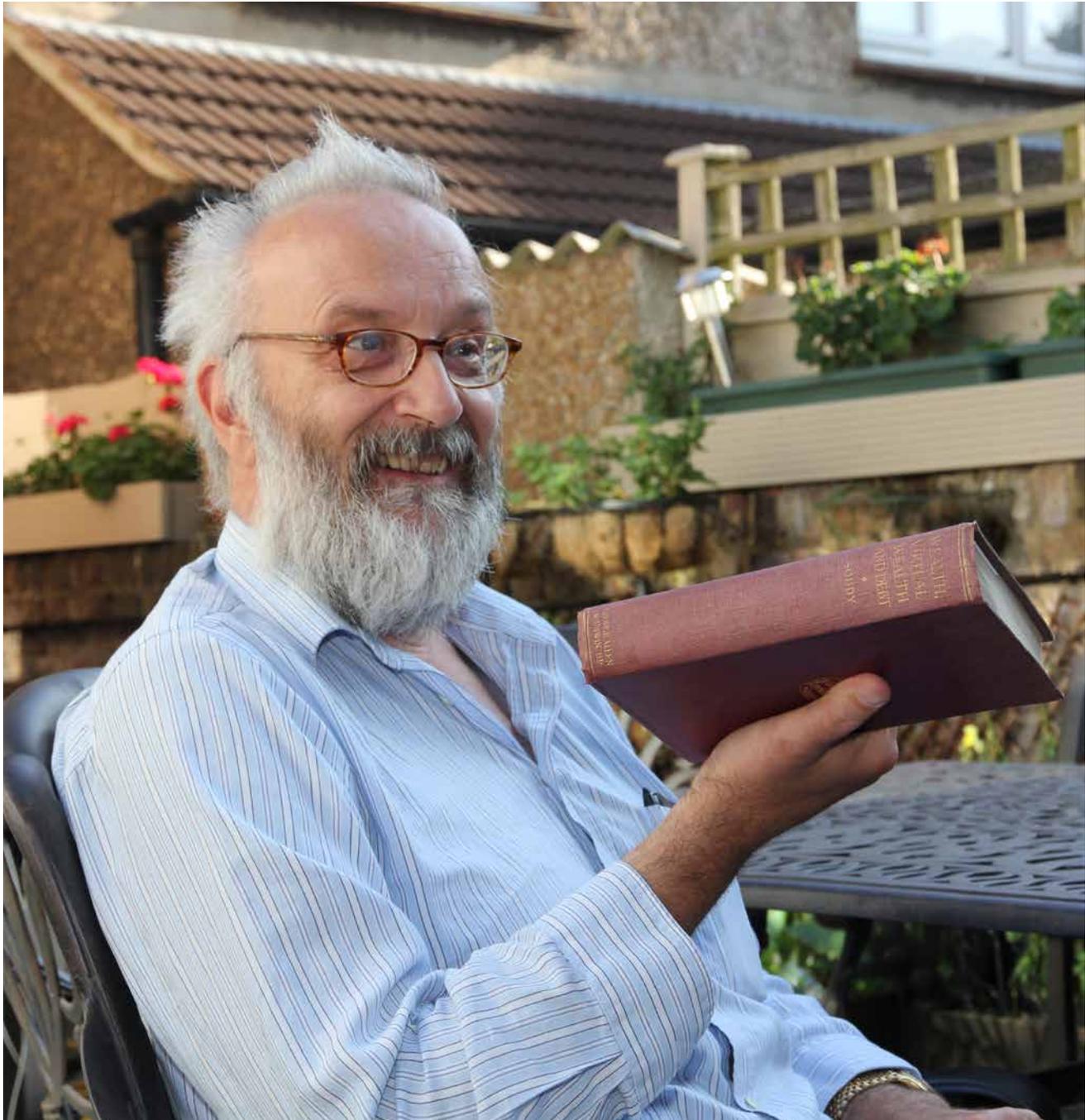
Peter Qvortrup, Audio Note (UK) Ltd.

# Q: AS IN THE QUINTESSENTIAL MAVERICK

By: Cai Brockmann. Photos: Cai Brockmann



THERE IS SO  
MUCH MORE  
TO DISCOVER...





Although the guy is actually old enough to do it, Peter Qvortrup, born in 1950, isn't for a moment thinking about heading into a comfortable retirement. And even if he did, he definitely has no intention of bowing out silently. This is one favor he's not planning to grant his detractors and competitors. This erudite-looking Dane is not only an urbane, switched-on kind of guy, he also has a strong streak of pugnaciousness running through him.

That streak emerged as early as the 1970s as a student of economics and political science in Copenhagen. A

rift with his professor and an enraged departure just in time to coincide with final exams were an early indication of the assertiveness that would serve Qvortrup well in his future career. "Proper training" and tangible work experience followed at the transportation and logistics giant A. P. Møller (Mærsk) as well as at his father's distribution company for GEZE automatic roll-up doors. By this time, the music-besotted LP collector had already completed his first serious audio projects in his garage at home. This led Qvortrup to set up his own hi-fi shop, Audio Consult, in 1978 in Copenhagen. This store

formed the nucleus of Qvortrup's audio distribution business, which became a conduit for importing such equipment as Lowther sound transducers and Hiroyasu Kondo tube amplifiers into Denmark. Qvortrup initially distributed these products only in his home country, but over time he grew increasingly successful at selling them worldwide. In 1984, Qvortrup set up his Audio Innovations business and began the serial production of tube amplifiers. Over the course of the next few years, he would design a range of contract products. After selling Audio Innovations in 1989, Qvortrup, who had by then chosen ▶



to live in the UK, mainly focused on his company, Audio Note UK, a company he has gradually developed into a full-range retailer.

Music and emotionally compelling music reproduction have always been Qvortrup's primary motivation. After a devastating fire at his parents' home laid waste to the teenager's sizable book and record collection, Qvortrup developed a strong desire to tackle "the business involving music" much more systematically from then on out. And so in that moment an almost obsessive passion for collecting vinyl and tube technology

was sparked, a passion that eclipsed a mere desire to compensate for a loss. Although he generally prefers a broad range of classical music and jazz, there is practically no style of music that seems to really get on Qvortrup's nerves. And he still takes great pleasure in creating a musical uproar and a genuine surprise. Qvortrup is quite capable of putting on the latest dubstep, hip-hop or metal disc right after a Callas number and not bat an eye. And with Qvortrup, you always sense his yearning to discover a new artist and previously unknown music not just for himself, but also to help his visitors get a better feel for such new

discoveries. His three adult children, who, like their father, travel the world and manifest a similarly broad interest in music, regularly provide inspiration. In particular, his daughter Emily has a particular affinity for her father's oeuvre. She is now the CEO of Audio Note UK and doing an excellent job, much to the delight of her father.

Qvortrup "can't take" most of his fellow modern-era audio designers "seriously." It's been a long time since they focused on the fundamentals and established a direct relationship with either the music or the artist. Qvortrup regrets the ▶



absence of a necessary humility toward artistic-musical achievement and feels a spiritual affinity for the universally respected old masters who went about their work “with the appropriate amount of respect for music.” In keeping with this tradition, Qvortrup sees music reproduction as an interdisciplinary challenge, one that requires metrology but should not be obsessed by it. The emotional experience should come first—the effortless cognition or even recognition of music relationships. One of the most important aspects here is the unmistakable character of each instrument, the “sound concentration and sound integrity” (“harmonic

envelopes”) that can’t really be evaluated in the laboratory alone and that can’t be reproduced. Qvortrup often refers to an instrument’s “medium,” whose uniqueness and wealth of nuances can be compared with the distinctive voice of one’s own mother, a voice you can pick out from among even the most confusing of vocal labyrinths. To differentiate between “right” and “wrong” in terms of his designs, Qvortrup relies on a highly developed acoustic memory. A keen concert-goer, he can effortlessly memorize sound structures that he never forgets. Not harming the original music signal, which can “never be bettered, only preserved”

during playback, therefore has priority. Qvortrup’s designs are said to make it particularly easy to immerse yourself in the music.

Incidentally, Qvortrup celebrates his birthday on July 4, Independence Day in the United States. Yet the avowed pacifist couldn’t care less what Americans generally consider worthy of celebration. In particular, he rejects the right to own firearms. Apart from a few clever minds from the worlds of philosophy, the global economics and literature (for instance, Frederick Soddy and his work, “Wealth, Virtual Wealth and Debt” published in 1926), ▶

this avid reader and globetrotter has scarcely one good word to say about mainstream American culture. Okay, he occasionally appreciates the incomparably mellow feeling of cruising in an American van, but Qvortrup is really a huge fan of modern Mercedes-Benz classics from a time they were still “properly designed.” Information about his collection of exceptional models has even reached Stuttgart, where they have already expressed interest in certain rare models, for example those from AMG. His corporate fleet, on the other hand, includes about a dozen “good old E-Class” vehicles (W124 Series), some featuring right-hand drive and some with left-hand drive, which occasionally leads to amusing situations when drivers swap vehicles “on the fly.”

Qvortrup prefers to spend his still less than abundant free time with his

wife, Lesley, at their holiday home in the south of France. There the self-described gourmet owns a small vineyard with other like-minded amateur vintners, and friends and guests are welcome to enjoy a drop of this very decent drink. Loosely reflecting the saying “anybody who’s not interested in food and drink or even music inevitably has to be a bore,” non-bores occasionally enjoy a stopover at the inconspicuous, tastefully furnished and decorated row house in Brighton and Hove. This is, by the way, where the court of last resort issues its final say over all Audio Note designs: Qvortrup’s listening room—as you would expect of a collector—is stuffed to the gills with thousands of records. And with selected books. Retirement? That’s simply not an option for a mentally agile maverick. ■

[www.audionote.co.uk](http://www.audionote.co.uk)



**Volume up or down?** *Up.*  
**Analog or digital?** *Analog.*  
**Tube or transistor?** *Valve.*  
**Vinyl or download?** *Vinyl.*  
**Cross-country run or gym?** *Gym.*  
**Trends or tradition?** *Tradition.*  
**Tea or coffee?** *Coffee.*  
**Salad or steak?** *Salad.*  
**Wine or beer?** *Wine.*  
**Mountains or the sea?** *Sea.*  
**Book or screen?** *Book.*  
**Jazz club or opera house?**  
*Opera house.*  
**Bach or Beatles?** *Bach.*  
**Wagner or Wacken?** *Wagner.*  
**Stand-by or plug out?** *Unplug.*

Volume up or down?  
 A very quick interview with Peter Qvortrup where we wanted him to respond as fast as possible.

This is a reprint from “WHO IS WHO IN HIGH FIDELITY”—Vol. 1, the compendium from FIDELITY VERLAG GMBH, to highlight the heavyweights as well as the little guys who still pack quite a punch, and to introduce you to the people behind, to bring some order to the ever-expanding high-end business. Ask for your copy.



The rack for perfectionists

# SUBBASE AUDIO SHAMBALA TSS

By Cai Brockmann. Photos: Manufacturer, Ingo Schulz (Mastering)





Why two vertical sandwiches have a relaxing, calming effect.  
Why bracing in the right places makes sense.  
And why a special-purpose item of furniture does not necessarily  
have to look completely out of place.





\_\_\_\_\_ Yes, it is an item of furniture. But not one of those standard hi-fi racks that you only put equipment on so it's not in the way. No, the Shambala from Subbase Audio is a statement of perfection, each one made individually to specification. And at the price you'd expect. This "item of furniture" is designed to bring, in terms of sound, the best out of existing high-end components by absorbing resonance that is detrimental to sound quality—caused by the equipment itself or by external factors – and reducing that resonance to a imperceptible level. A difficult and delicate task, certainly, but one that assumes greater importance for overall sound delivery, given increasing component quality. Some people will perhaps only fully recognize and appreciate the Shambala's positive influence when it is no longer part of the system. Subbase Audio packs its "protection zone" (which

is what Shambala is said to mean in Tibetan) with audiophile features right down to the smallest detail. The choice of materials and the quality of workmanship are simply impeccable, and a weight of around 75 kg makes a clear statement. You can also spot its ultimate aspiration right away. Setting up the bare Shambala in the FIDELITY listening room was enough to cause a stir. The elegantly contrasting material mix of black acrylic, highly polished metal and, in this case, attractive vivid veneer draws longing glances but is also somewhat misleading. Motto: too attractive to be any good.

Nonsense!

The Shambala is, in the traditional sense, well-proportioned and quite visually appealing from any perspective. It does not seem overpowering in any way, rather it lets any device located on it take the limelight. As originally intended, the Shambala ►

does not act as an opponent but a fully fledged teammate of the audio system. Thomas Schlipper is personally committed to delivering perfect workmanship. In contrast to so many windbags in the community, this skilled industrial mechanic puts his money where his mouth is, one hundred percent. His commitment to perfection and his craftsman's ethos, which you can sense in every conversation you have with him and in every product he creates, has something calming about it. The Shambala TSS is based on two resonance-enhanced support panels or shelves, which, despite a maximum usable width of around 150 centimeters – and no vertical intermediate struts!—do not “sag,” even if they have to support considerable weight. To this end, two extremely solid sandwich-design sidewalls (acrylic meets aluminum) exert a vice-like grip on both supporting panels using solid metal connecting brackets. The support panels themselves are made of veneered multiplex boards, but of course feature that proven, typically Subbase

inner matrix. The boss himself provided the brace to deliver a uniform maximum of low resonance; the knock test indicates a setup that really does work.

The materials and the dimensions alone guarantee superb stability and low resonance for the “musical protection zone.” To counteract even the tiniest interference that could create a horizontal impact, the rear of the Shambala features additional C-shaped stabilizers made of solid steel that give the rack an almost amazing degree of torsional rigidity. Fine engravings on one of the stabilizers and on the mirror-polished metal lipping on the support panels emphasize this star quality for any living room.

Admittedly, there are more subtle finishes than the “grey-grain,” “save the rain forest” veneer that our test sample featured. But that only plays a subordinate role in terms of the overall impression. Anyhow, real perfectionists tend to simultaneously order the thoroughly recommended Composant S bases ▶





for their equipment collections (FIDELITY Magazine 2/2013). Their ability to substantially reduce the impact of electromagnetic interspersal adds another dimension to the Shambala's mechanical protective function. I've checked it out and can thoroughly recommend it.

Having the Shambala at my disposal has made me not want to be without it.

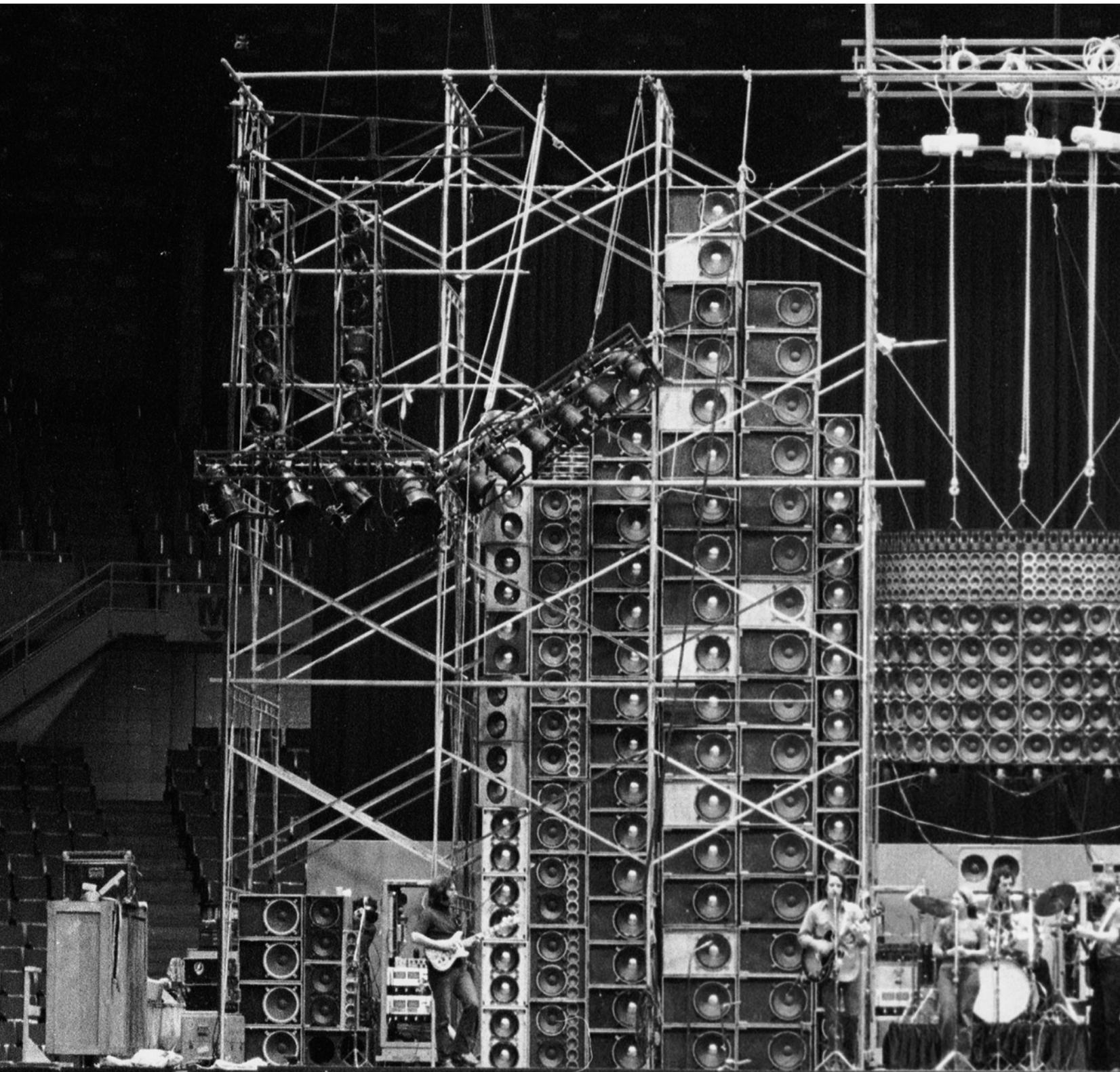
If you'll pardon the "flying" metaphor, the rack and its "wings" (support panels) do indeed manage to take their VIP passengers—each audio component – and the listeners to new while at the same time calmer sound heights.

I should just emphasize at this juncture that there is absolutely no need to comment any further.

Shambala does not have its own signature, and it does not produce its own sound. Instead, it "just" gets the best out of its "passengers": It expands the space, structures the bass and definitely provides greater clarity in every discipline. As mentioned previously—perfect. ■

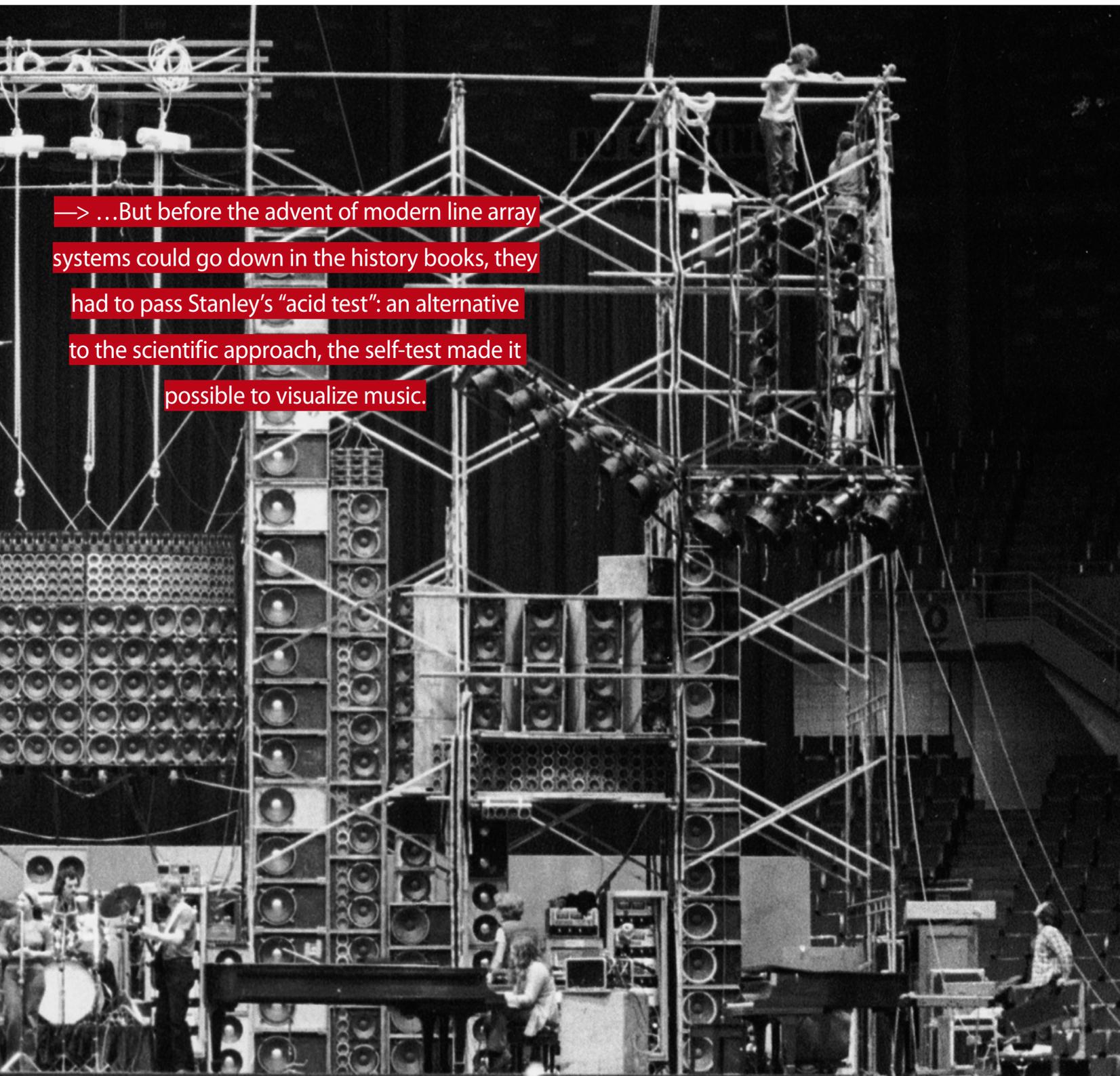
**Subbase Shambala TSS | Hi-fi Rack | Warranty period: 3 years | Price: on request**

**Subbase Audio Manufaktur, Thomas Schlipper | Gut Velbrüggen 7 | D-41469 Neuss | Phone + 49 178 3410431 | [www.subbase-audio.de](http://www.subbase-audio.de)**



Owsley "Bear" Stanley, an expert for sound and LSD, came up with something special for the Grateful Dead back in 1974. He erected a system of JBL speakers and McIntosh amps unlike anything the world had ever seen (or heard) in order to create the legendary Wall of Sound... —>

—> ...But before the advent of modern line array systems could go down in the history books, they had to pass Stanley's "acid test": an alternative to the scientific approach, the self-test made it possible to visualize music.



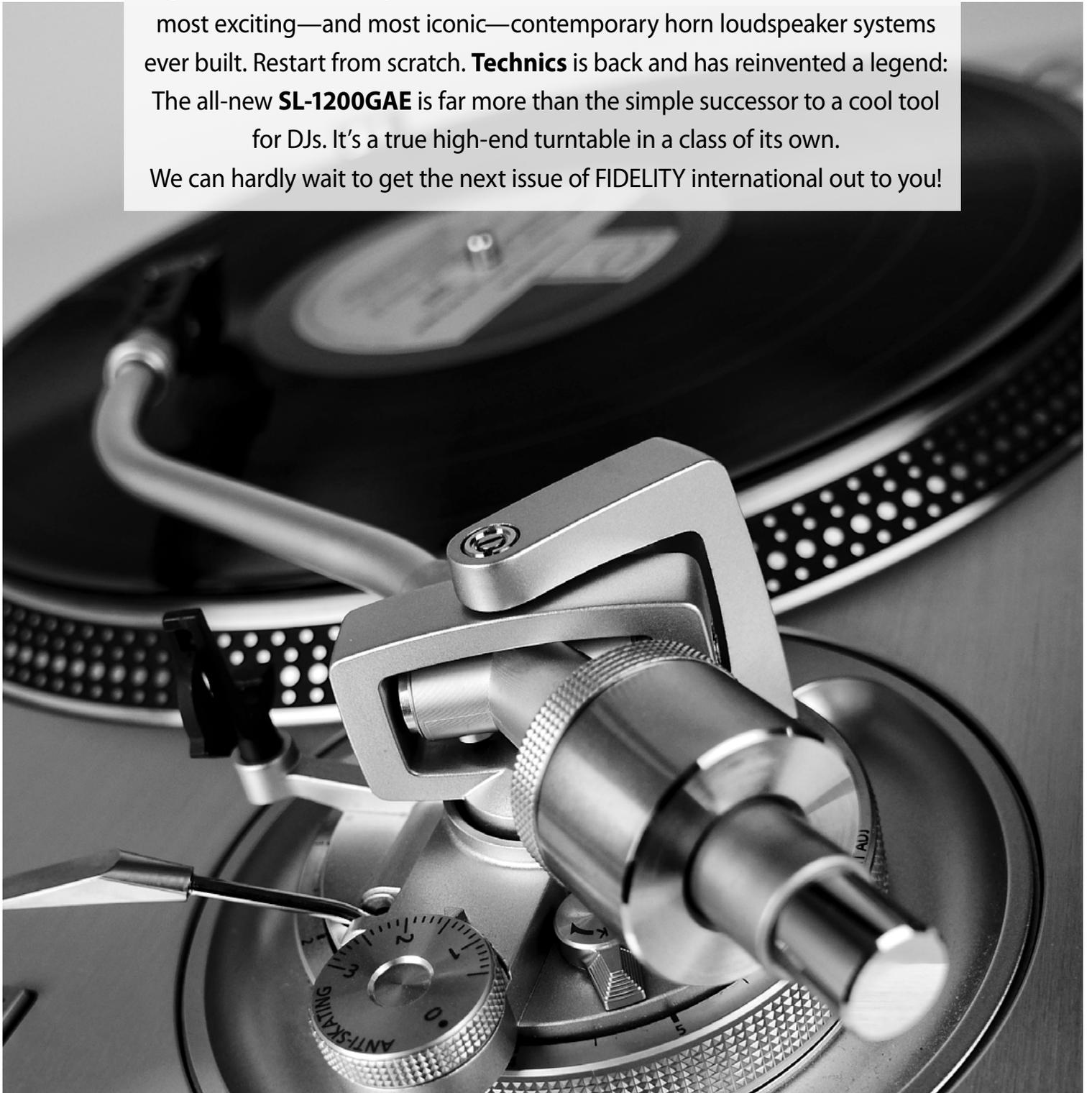


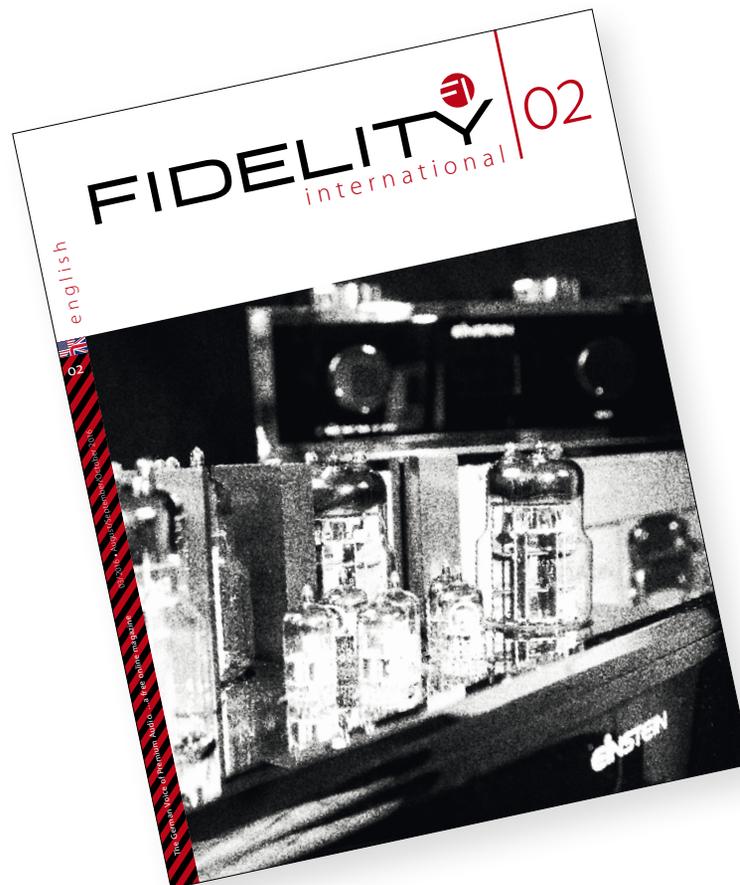
# PREVIEW

FIDELITY international No. 3

We hope that you, a valued member of the global hi-fi community, enjoyed reading FIDELITY international as much as we had in putting it together. For the upcoming third edition of FIDELITY international, we will provide you with another fabulous potpourri of interesting articles about equipment and news from the audio world. ▶

In the high-end audio league, introduction of a “moderately priced” digital player is enough to create quite a stir, especially when the unit has a good pedigree and is controlled by an exceptionally precise clock: **Esoteric K-05X** and **G-02** are going to take your digital collection by storm. Many audiophiles favor premium headphones with accompanying amplifiers over loudspeakers. **Audeze** has introduced a match made in headphone heaven: the **LCD-4** and the **King**. Nomen est omen? We will also present an inside story about **Avant-garde Acoustic**. Holger Fromme’s company really bowls us over with the most exciting—and most iconic—contemporary horn loudspeaker systems ever built. Restart from scratch. **Technics** is back and has reinvented a legend: The all-new **SL-1200GAE** is far more than the simple successor to a cool tool for DJs. It’s a true high-end turntable in a class of its own. We can hardly wait to get the next issue of FIDELITY international out to you!





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 of equipment evaluation.



# THE END

Thanks for reading issue 02 of FIDELITY international. Issue 03 will be put online by End of November 2016. Be prepared and subscribe to our newsletter to get the latest news at first.