

FIDELITY

international

10

english



03/2018 • August / September / October 2018

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

10

QUIETER AND STRONGER



In many audiophile circles, it is commonly believed that power conditioners and various other power-line accessories often do more harm than good, robbing the music of its vitality, color, and that oh-so-important, wildly intangible "boogie factor."

AudioQuest's **Niagara Low-Z Power Noise-Dissipation Systems** are designed to do the exact opposite. Niagara kills the noise while *honoring* the music, so that the listening experience can be exactly as it should be: compelling, immersive, *fun*.

"The difference was huge. AudioQuest's Niagara 1000 not only cleaned up the power, it did everything that is the *opposite* of killing the boogie.... It was as if my system had gotten a heart-shot of adrenaline."

— Herb Reichert,
Stereophile,
April 2017



audioquest®



Sound from Light and Air

Conventional speakers use membranes to electromechanically produce pressure and density variations in air—commonly known as sound. The only exception to this is the plasma or ion tweeter, which uses air itself to create sound. But how...? —>

1925

1950

1975

1946: Ionophon
from Siegfried Klein

1965: B&W P2 with
"IonoFane" Tweeter

—> ...An arc just a few millimeters in size creates an ionized gas cloud in a tiny combustion chamber. This ion field is modulated by the music signal and the field changes its dimension with the beat of the music; the surrounding air is not directly energized through a comparatively slow membrane, but rather without employing mass. The image shows the flame of the Corona ion tweeter from Lansche Audio.

1978: Plasma tweeter from Dr. Siegfried Klein

1990: First ion tweeter from Lansche engineers

1999: Lansche acquires rights to the Corona ion tweeter

1975

2000

2025

1978: Corona ion tweeter from Otto Braun, Corona Acoustics

1981: First series speaker with plasma tweeter: Magnat Transpuls MP-X-101

2008: Completely reworked Corona ion tweeter from Lansche Audio



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 design-oriented concept incarnates both the timelessness of the Bauhaus style steel tube furniture and the industrial charm of modern lofts.

Helmut Hack



DEAR READERS,

“Fate has dealt a severe blow”—a phrase frequently used but often without real consideration for the significance of its meaning. Words like this assume the function for us of classifying the unspeakable and the unthinkable and all that what fate often devastates with its powerful blow. When a plane crashes, for instance, we’re interested in the reason for the crash—not because it’ll bring the people back, but because it helps to categorize their destiny, to steer it toward a technical term, and in this way make fate seem less arbitrary. In the last few weeks, fate has not been good to us here at our little magazine. First, the death of Dave Wilson after a long battle against metastatic bone cancer. This came as no surprise, but it still hit us exceptionally hard due to the great history of Wilson Audio. But fate had something even more painful in store for us: On July 27, the life of our cofounder and editor in chief of so many years, Cai Brockmann, was

abruptly taken from him, robbing FIDELITY magazine of one of its strongest driving forces.

In addition to the honoring of these two great individuals, you will, of course, find the usual premium high end and great music in this 10th edition of FIDELITY international. Although our main topics are this time shadowed by these events we do hope you enjoy this anniversary edition. Take some time to listen to some good music and think about those who have left us too early.

FIDELITY international—sound journalism for true audio connoisseurs. A free online magazine made in Germany

Best regards,
Helmut Hack

aqua
acoustic quality

Formula xHD

The Optologic DAC

Our pure FPGA-based R2R Ladder fully-floating (isolated) D/A converter system



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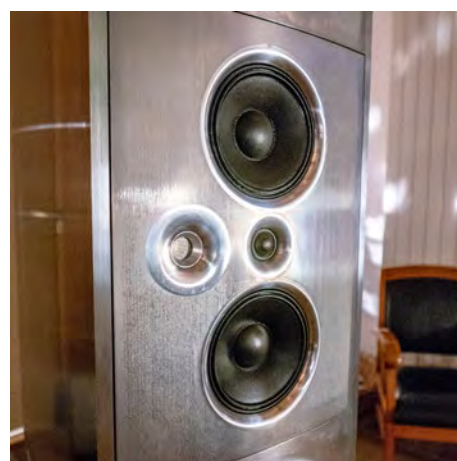
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Please note: All items are listed with German retail prices (including sales tax) at the time of equipment evaluation.



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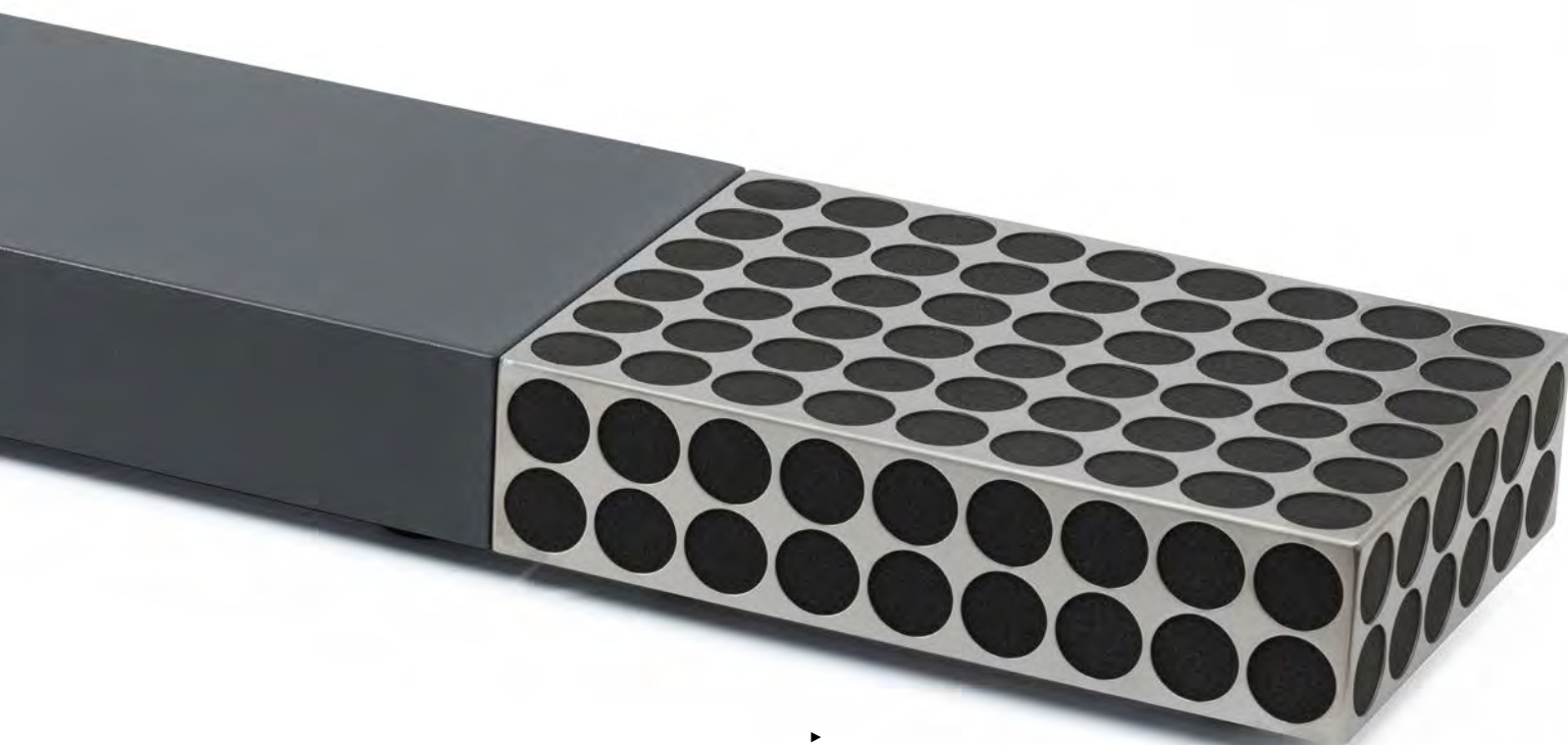
POET Audio baretta

FLASHY FLAT FLOUNDER

By Jochen Reinecke. Photography: Ingo Schulz, manufacturer



HOW IMPORTANT IS A STEREO SYSTEM'S OUTWARD APPEARANCE? CAN A STYLISH DESIGNER PIECE ACTUALLY SOUND GREAT TOO? AND WHAT STRUCTURAL MOLDS CAN BE BROKEN WITHOUT JEOPARDIZING SOUND QUALITY? POET AUDIO'S BARETTA IS LIKELY TO PUT A WHOLE NEW SPIN ON THIS DEBATE.





_____One thing you could never accuse POET Audio of lacking is self-confidence. The Graz-based company, which, incidentally, raised a sizable share of its capital through equity crowdfunding, sells a stereo system with 10.5-centimeter tall (!) floor-standing loudspeakers for the handsome sum of €8,950. Just close your eyes for a moment and try to imagine how that would work or sound

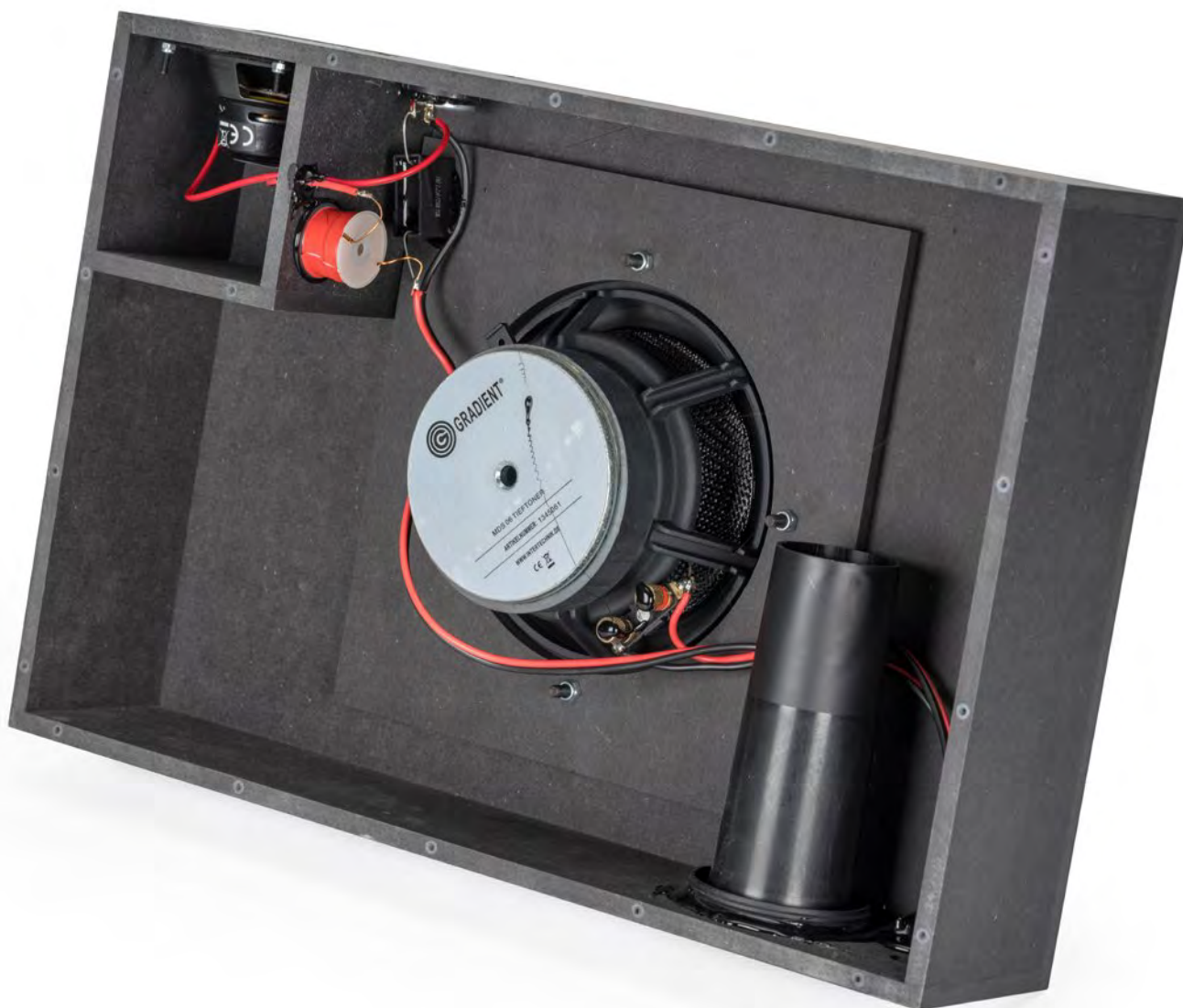
in practice. To be honest, I couldn't. When I first heard about this flat flounder of a device from our editor in chief and took a gander at the speaker's website, I brushed the thing aside. To me it clearly looked like yet another overpriced designer piece being pushed on the market for nonmusically minded architects and bored rich housewives. Did I really want to try it out? On the other hand, it did look kind of fun. And

POET Audio is full of audio-engineering graduates from Graz University of Technology. Well, okay: eeny, meeny, miny, moe, catch a flounder...

Two weeks later, a foul-tempered UPS driver grunted his way up the stairs and offloaded three boxes from his trolley. The large one contained the 80-centimeter-wide and 10.5-centimeter-tall control center; the two smaller ►

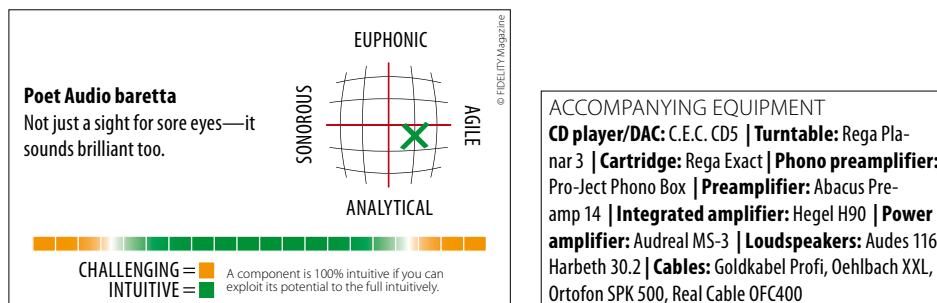


THE SATELLITES OF THE BARETTA, IN BASS REFLEX DESIGN, HOUSE A DOWN-FIRING BASS DRIVER AS WELL AS A FRONT-FIRING FULL-RANGE DRIVER AND A DOME TWEETER. A STAINLESS-STEEL PINHOLE APERTURE (RIGHT) TURNS THIS INTO A DESIGNER LOUDSPEAKER.



A PROFESSIONAL-LEVEL SUBWOOFER
IN THE MIDDLE SECTION, WHICH
ALSO CONTAINS THE ELECTRONICS
WITH THREE CLASS-D POWER
AMPLIFIERS (RIGHT), ENSURES THRUST
FROM THE FREQUENCY CRYPTS.





ones had the loudspeakers. These are hooked up to the main device using sturdy-looking coiled cables fitted with XLR connectors. It's up to the user how far to place the loudspeakers from the main unit—the coiled cables stretch up to a total of 3 meters. The entire system can either be set up on the floor or on another flat surface such as a sideboard. The main housing is sturdy enough to support the weight of a flat-screen TV, making it possible for the baretta to be also used as a sound bar.

This very same main housing contains the electronics, including three class-D power amplifiers and an Apple AirPort Express station, as well as a down-firing subwoofer driven by one of the three class-D power amplifiers. As I'm sure you've already guessed, the other two power amplifiers drive the satellites, which in turn have their own down-firing bass driver as well as a front-firing full-range driver with kevlar diaphragm and a dome tweeter. This is actually quite remarkable as the design leaves you guessing just how many drivers per loudspeaker there are and in which direction they fire. You'd have to take the devices apart to find all that out.

One thing you absolutely have to avoid doing is to place the baretta on a deep-pile rug. An even, sound-reflective surface is a must. This can even be a carpet, provided it isn't too soft,

as two rear-mounted tone controllers allow users to fine-tune the bass and sub-bass range.

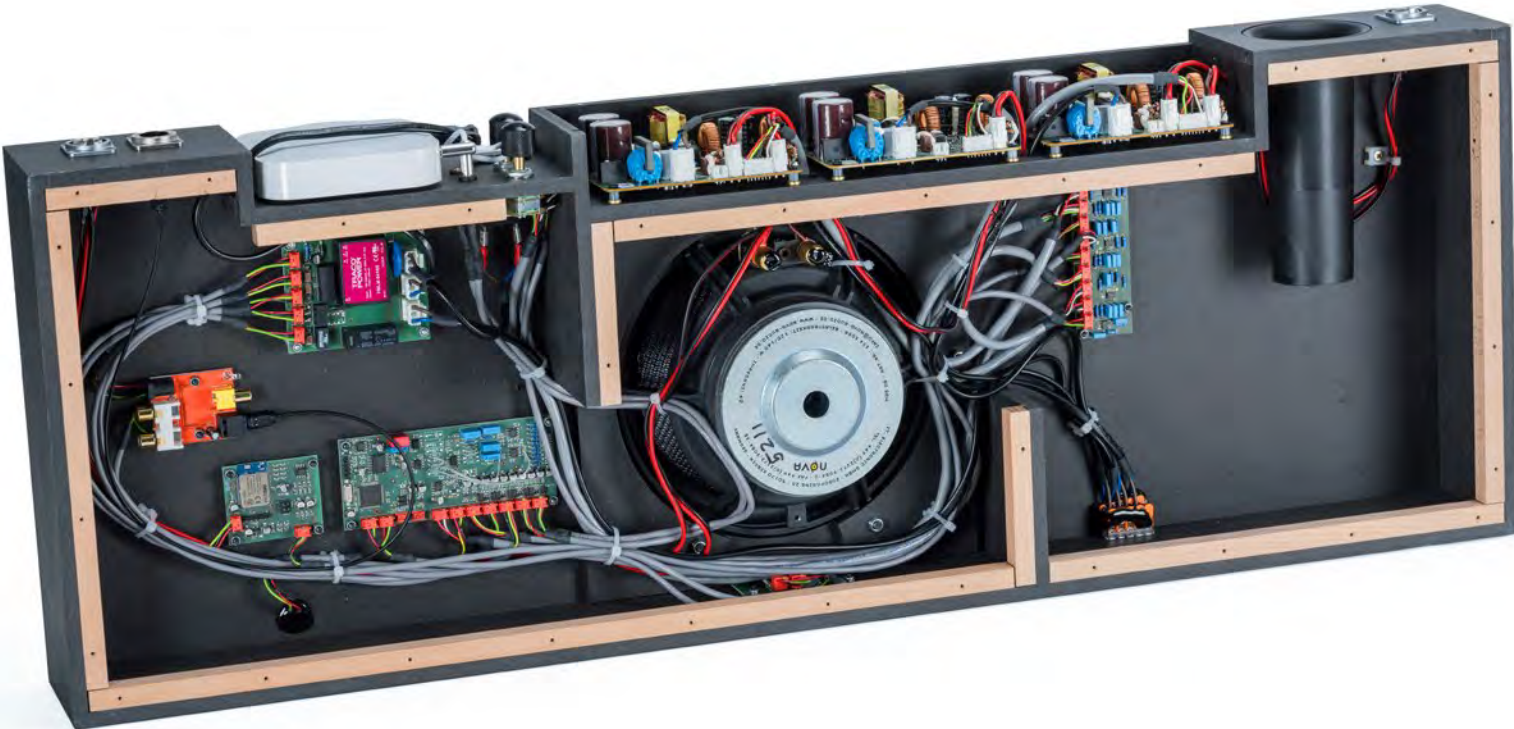
When it came to setting the baretta up, this reviewer was rather astounded at how unparalleled it was. After turning on the device using a switch integrated into the power cable like you find on bedside lamps, the device's logo lit up in a soft red. So what's next? You've got three options for feeding the baretta music: wirelessly over Bluetooth or Wi-Fi (thankfully the baretta creates its own), digitally using TOSLINK optical fiber or classically by going the analog route with a 3.5-millimeter stereo jack—and all these sources are amassed in the baretta. That's also why it doesn't have an input selector. The baretta simply plays whatever it gets fed, with the volume controlled either at the source—e.g., on your iPhone—or using the rather rudimentary remote control supplied as a standard.

Let's recap: Loudspeakers so short they're verging on the ridiculous, no input selector, Bluetooth, stereo jack—is this really a serious candidate for producing great sound? To my utter amazement, it actually is! The baretta is definitely an uncompromising stereo system that demands to be taken seriously, even by the staunchest of audiophiles.

Surprise number one is that the loudspeaker design manages to deliver

a completely coherent and vertically extensive sound. The floor's edge reflections are cleverly utilized as the baretta loudspeakers don't limit themselves to the feet as you might expect. This is really impressive. Then there's the overall extremely well-distributed sound around the room—there's essentially no sweet spot anywhere to be found, so you can walk around the listening room to your heart's content and enjoy three-dimensional sound almost anywhere. Okay, localizing individual sound sources with millimeter accuracy is definitely not as precise a process with the baretta as it is with a well-calibrated two-way compact system. Nevertheless, the baretta delivers a hell of a lot more in terms of three dimensionality and planarity than you'd expect.

Surprise number two is the excellent built-in electronics: Even over Bluetooth, this system doesn't sound anything like just a toy, although in my opinion optimum sound quality is achieved with the TOSLINK input. The power amplifiers and loudspeakers pour out up to 440 watts into the room and are configured in such a way that it's virtually impossible to cause any distortion for the baretta. Yours truly actually threw a last-minute New Year's Eve party with the flat flounder, feeding it top-notch production gems such as Daft Punk's *Random Access Memories*. The opening track, "Give Life Back to Music," is a real ▶





party anthem with funky guitars and bass, a hefty slice of keyboard and synth sounds, and awesome drums that are so groovy, they're verging on the perverse. After just a few beats, my apartment began to shake and everyone kicked off their shoes to start dancing. Even at full volume (the baretta displays a soft intermittent logo background light when all the dials are turned to max), the baretta sounded flawless and clean, clear and bright, and full of bass and funk.

Is there really nothing to criticize? Not really. You do need to bear in mind, though, that you need to take more care in setting up the baretta than is the case with most classic components. It's really worth testing various spots to find the optimum location for it as

well as experimenting with all the ideal settings for the bass and deep bass. The baretta's tonal balance, in particular, may not be direct or random. Markus Platzer, founder and CEO of POET Audio, therefore has a POET Audio team on hand to offer tailored advice over the phone. This means if you have any questions about room acoustics and the best location to set up the system, you can contact POET Audio to ask for their help; if needed, they will also go to you and set it up for a reasonable fee, Platzer says.

When you also take into consideration the fact that the baretta is not manufactured somewhere over in the Far East but rather in Graz itself and that 90% of the baretta's suppliers are located within a 200-kilometer radius

of Graz, then the hefty price tag mentioned above no longer seems so unrealistic. One thing has become crystal clear, though: The baretta proves that high-end, disruptive design and great sound are in no way mutually exclusive. The loudspeakers passed their test with flying colors—hats off! ■

Complete system | POET Audio baretta

Inputs/sound source options: S/PDIF (optical), 3.5-mm stereo jack, WLAN (Apple AirPlay) and Bluetooth aptX | **Outputs:** Loudspeakers (XLR) | **Total power:** 440 W | **Streaming formats:** All typical digital formats | **Dimensions (H/W/D):** 14/173.5/30.5 cm | **System weight:** 20 kg | **Housing options:** Steel and stainless steel silver or black, chrome front optional | **Warranty period:** two years | **Price:** €8,950

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BROWSER

№ 01



New top of the line SACD/CD Player and enhanced Music Streamer

McIntosh is proud to announce two new products: the MCD600 SACD/CD Player and MS500 Music Streamer. Each product combines the best-in-class audio performance of the legendary McIntosh Reference System with the latest in technological development. The MCD600 is wrapped in classic McIntosh styling with a polished stainless steel chassis, black glass front panel, illuminated logo, knobs and aluminum end caps. The front panel features new direct LED backlighting for improved appearance, while the top has a new screen printed glass panel listing performance specs and a block diagram. The sophisticated yet simple to use MS500 Music Streamer seamlessly integrates both internet based streaming music and locally stored digital music into one comprehensive device.

www.mcintoshlabs.com

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HIGH END Picture Galleries

Take a little time and let us accompany you on a virtual tour around this year's munich shows. We have focused the lens on the breath-takingly good and expensive super speakers as well as on entry-level speakers at a reasonable price range. The focus was also on new and/or expansive analogue drives as well as modern digital all-rounders, multi-room systems or simply good and proven CD players. Of course we also took photos at this year's partner fair for headphone friends CanJam and found what we were looking for. If you reduce your office hours' sleep by only half an hour a day, you will gain enough time to enjoy our picturesque trade fair walks in all detail.

<https://www.fidelity-magazin.de/2018/05/28/high-end-munich-picture-galleries-part-1/>

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AVID introduces new Acutus DARK Limited Edition

First seen at Munich's High End Show this much revered design will be available in a matte black finish.

It still carries the same 10-kg metal platter driven by twin drive belts which are propelled by our legendary hand-built motor and calibrated DSP controlled Variable speed PSU, ensuring perfect pitch and stability control. Individually numbered, just 100 pieces of the DARK are available—and what is the extra cost for this

I hear you ask? It's less... 26% less.

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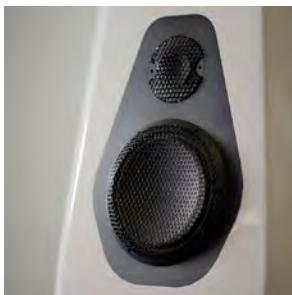
BROWSER № 01

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BROWSER

№ 01



Created by TIDAL Audio: VIMBERG

TIDAL Audio GmbH is pleased to announce the creation of a new brand: VIMBERG. The first two models in the range of launched products are 3-way loudspeakers 'Mino' and 'Tonda'. All VIMBERG products are designed and will be produced in the new design and production headquarters of TIDAL Audio GmbH, both located in Hürth/Germany.

www.vimberg.de

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Measurements

BOWERS & WILKINS 800 D3

Text, measurements, and graphics: Anselm Goertz. Photography: Ingo Schulz



THE MEASUREMENT LAB

All measurements are carried out using the PC-based measurement system Monkey Forest employing a resolution of no more than 1 hertz and a sampling rate of 96 kilohertz. As the measurement microphone, a B&K condenser capsule type 4939 (with a one-quarter-inch diaphragm diameter) is used along with an impedance converter type 2670. Coupled with a compensation file, this combination can provide accurate measurements up to 40 kilohertz. The microphone signals are amplified using a B&K measuring amplifier type 2610 and then passed to the measurement software over a high-precision 24-bit, 96-kilohertz measurement front end. Two small 20-watt measuring amplifiers are available on the output side for taking standard measurements. Where seriously high power levels are needed, a Crown Reference I or Crown I-T12000 hard drive is used.

The measuring chamber is designed as a hemi-anechoic room with a fully reverberative granite floor, facilitating free field conditions from 100 hertz upward. The microphone taking the measurements is always placed on the floor so there are no visible reflections for the microphone from the floor surface. Measurements for frequencies below 100 hertz are taken as near-field measurements directly in front of the source. The software automatically combines them with the far-field measurements at a later stage. Measurements should be taken at a distance corresponding to a typical listening position, which may be up to a maximum of eight meters. For small speakers, the distance used is usually two meters; larger ones are measured at four meters or eight meters.





Bowers & Wilkins 800 D3

British-based manufacturer Bowers & Wilkins (B&W) has been in business for 50 years. Retaining a strong position for so long on a market just as susceptible to the latest fashion trends and hype as it is to economic fluctuations requires certain qualities that don't always come naturally in the high-end sector. So what's so special about B&W's products? Starting early on with the development stage, B&W maintains control over everything. The company develops all its chassis in-house; the same is true for all manufacturing and metrology work. For the passive crossovers, the renowned manufacturer Mundorf supplies special components adapted precisely to the loudspeaker's requirements.

The company therefore has everything in terms of technical development under control its control. This gives B&W a significant advantage over its competitors, who are dependent on the products provided by their established chassis manufacturers and who then find

it difficult to stand out from the crowd. And then there's exceptionally high-quality workmanship that goes into the elaborate manufacturing of the specially shaped housings: Having the relevant skills and manufacturing in-house has significant benefits in terms of costs and logistics. The high level of in-house development and manufacturing also means comparatively (!) reasonable prices for end customers. A pair of 800 D3 loudspeakers will set you back €30,000. Admittedly, not everyone could or would even want to shell out so much money on a pair of loudspeakers. However, those who do are rewarded with the sense they've also gotten their money's worth in terms of technology and workmanship—not something you can take for granted in this or in even higher price categories. Then there's also B&W's straightforward pricing and product policy, which ensures you don't discover shortly after making a purchase that the value of the product has already plummeted. B&W products also enjoy correspondingly strong price stability on the secondhand market too. ►





Measurement lab versus listening experience?

Following various audio tests (see also FIDELITY Magazine No. 37), the B&W 800 D3 found its way into the Aachen measurement lab along with Ingo Schulz. Thanks to very well-thought-out packaging and appropriate tools in the lab, where everyone is used to dealing with heavy equipment, setup proved quick and easy. The first task up: seeing how the loudspeaker performed from a metrological perspective. We approached this step with a certain level of expectation, created by the fact that the 800 models, in particular, enjoy a very good reputation, even among sound engineers, and can be found in several major studios, which presumably doesn't just come down to their attractive outward appearance.

High-end folk tend to frown on measurements, and the assertion that loudspeakers with linear frequency response “don't sound good” and are “rather boring” is often found in related articles. That assertion can actually prove to be correct if, very selectively, you only consider the frequency response and disregard everything else. Good on-axis frequency response is, in fact, of little use if the sound dispersion is uneven or drivers are employed that have extremely low sensitivity and struggle to faithfully reproduce dynamic signals. At times, poor adjustments and partially crude crossover concepts only serve to further exacerbate the situation.

There's good reason why broadcasters, recording studios, and even cinemas have clear specifications as to what they expect from monitor loudspeakers. These include a linear frequency response and controlled sound dispersion as well as low distortion and high-level stability. If all measurements are taken as a whole, a clear correlation with the listener's overall impression can be seen. This has been confirmed time and time again in laboratory experience gained over almost 30 years now. Here are two examples: A vintage coaxial system wows listeners with its impressive dynamics, even with rather weak amplifiers. A slight coloring is produced in the sound, but this is happily accepted in view of the

dynamics. And the measurement values show exactly that as well. The frequency response is somewhat twitchy, however the maximum-level measurement shows very high peak levels with low distortion. The sound dispersion is also rather narrow. This means the loudspeaker is ideal for a greater listening distance and high levels. The second example involves a small two-way bookshelf speaker with a perfectly linear frequency response, sensitivity of 82 decibels per one watt per meter, and fittingly rather moderate peak-level values as well as broad sound dispersion. Compared with the first example, this loudspeaker sounds rather neutral but undynamic or, as some would say, boring. Here, too, the measurement values also correspond to the listener's overall impression. When deployed correctly for short listening distances of one to two meters, this loudspeaker delivers comparable peak levels and is then presumably even better than the first model because the tonal discolorations are removed and spacial influences are less relevant with the short distance. The broad sound dispersion also enables a certain freedom of movement. These two simple examples demonstrate that you can't decide a loudspeaker is good or bad on the basis of generalizations, but rather you have to draw a conclusion in light of the application in question. And this is where measuring comes into play as it allows you to optimally assess what a loudspeaker is ideally designed to do or not to do. If you were to place the two speakers from the examples above in a large room next to one another, you would quickly get the impression that the large coaxial loudspeaker sounds dynamic and direct and that the small one with the linear frequency response is undynamic and diffuse—and you might quickly conclude that you'd proven that loudspeakers with linear frequency response can't sound great...

In short, measurements should always be viewed as a whole, measurement conditions must meet the required standards, and, very importantly, any assessment should be carried out with a view to the intended application. So, let's have a look at how the B&W 800 D3 got on in the measurement lab. ►



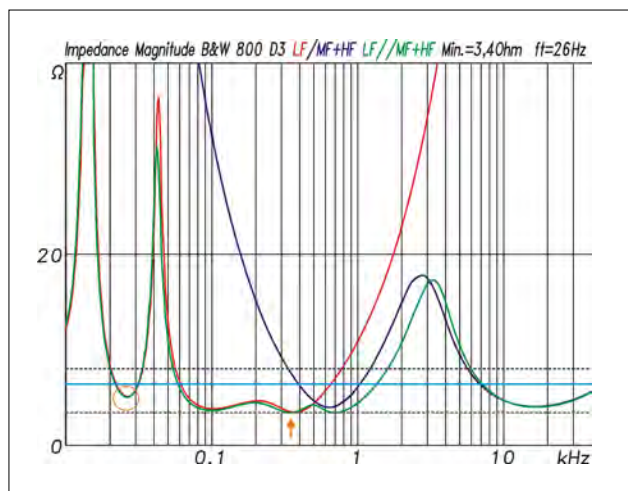


Fig. 1: Electrical impedance of the B&W 800 D3 for the woofer (red), the mid- and high-range tweeter unit (blue), and the complete speaker (green). The minimum impedance of the 8.0-ohm-rated speaker is 3.4 ohms at 350 hertz. The tuning frequency of the bass-reflex cabinet is 26 hertz.

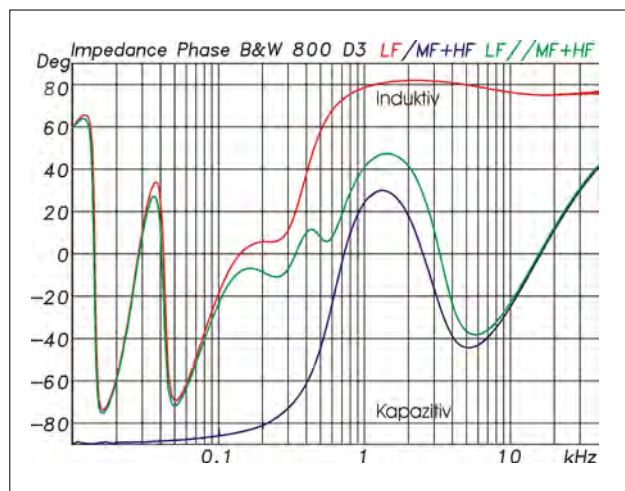


Fig. 2: Electrical impedance phase of the B&W 800 D3 for the woofer (red), the mid- and high-range tweeter unit (blue), and the complete speaker (green). A positive phase angle demonstrates the inductive part, while a negative phase angle demonstrates the capacitive part.

Electrical impedance

We kicked off our measurements with electrical impedance, which actually doesn't represent an acoustic dimension but can be of significance in conjunction with the amplifier. The B&W 800 D3 is designed to be a classic three-way system with passive crossover. Anyone keen on preventing possible crosstalk between the filter branches of the crossover can switch to bi-wiring (or even bi-amping) operation by routing the woofer branch and the mid- and high-range tweeter branch to the relevant power amps using separate cables. This will prevent any stray currents between the filter branches provided a sufficient damping factor is in place. The twin terminal also offers the measurement lab the advantage of being able to measure the paths individually. This in turn facilitates greater insight into the loudspeaker from a metrology perspective.

Figures 1 and 2 depict the curves of the electrical impedance in magnitude and phase. The images clearly show the impedance magnitude increasing toward the high frequencies and the phase quickly approaching the value of $+90^\circ$ for the woofer path (red) with low-pass filter in the signal path. The latter means a purely inductive load, which occurs as a result of the series coil in the low-pass filter at high frequencies. In addition, the mid- and high-range tweeter branch (blue) reacts with a high-pass filter, where a series capacitance increases the impedance toward the low frequencies to then culminate in a phase angle of -90° . Both together result in the speaker's curve as a whole (green curves), where a minimum impedance of 3.4 ohms at approximately 350 hertz and tuning the bass-reflex cabinet to 26 hertz are discernible.

With a minimum of 3.4 ohms, the impedance curve is absolutely noncritical for modern amplifiers. However, it remains unclear why B&W states the loudspeaker is a nominal 8.0-ohm system while the same line on the data sheet mentions a minimum of 3.0 ohms. Standards call for the nominal impedance to not be more than 20% below the rated impedance. With a measured minimum of 3.4 ohms both in bi-wiring and in parallel operation, the 800 D3 should be declared a 4.0-ohm speaker.

Frequency and phase response

With regard to the frequency response measurement, the twin terminal also makes it possible to measure the woofer and the mid- and high-range tweeter unit separately. In such cases, the measurement is carried out with the corresponding filters that are always in the signal path. As is readily apparent in the individual curves and the resulting green cumulative curve in Figure 3, the frequency response of the 800 D3 is not perfectly linear but runs in a relatively narrow tolerance range. The evaluated variation between 100 hertz and 10 kilohertz is ± 2.6 decibels (gray dotted lines). If you take the arithmetic mean of the sensitivity of 90.7 decibels between 100 hertz and 10 kilohertz as reference, then at -6.0 decibels the lower and upper cut-off frequencies are 29 hertz and 30 kilohertz, which should be more than sufficient for all applications. The orange line in the diagram is, at 84.7 decibels, exactly 6.0 decibels below the mean sensitivity of 90.7 decibels. ►

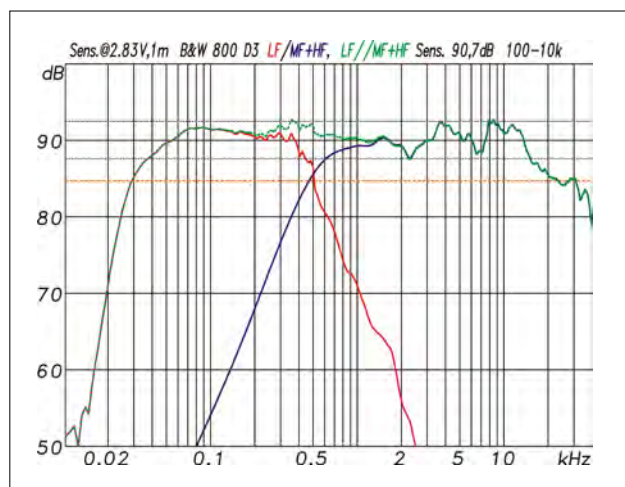


Fig. 3: Frequency response detailing sensitivity (green) relative to 2.83 volts per meter. The mean sensitivity is 90.7 decibels. The frequency response (-6.0 decibels) related to this ranges from 29 hertz to 30 kilohertz. The woofer is shown in red and the mid- and high-range tweeter unit in blue.



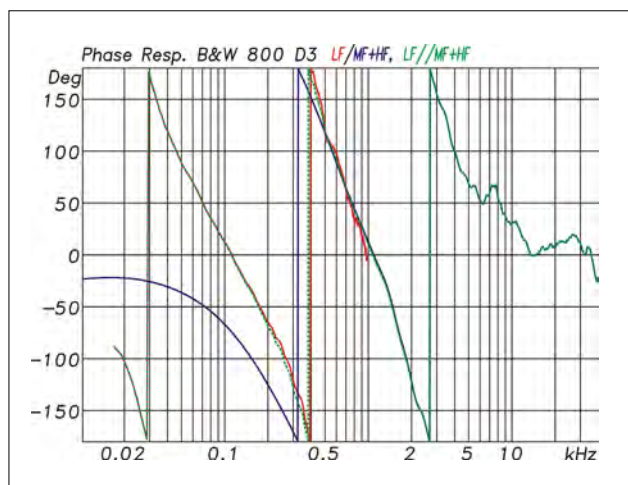


Fig. 4: Phase response with 360-degree phase shift due to the bass-reflex cabinet (fourth-order high-pass filter) and further $2 \times 360^\circ$ on account of the crossover functions.

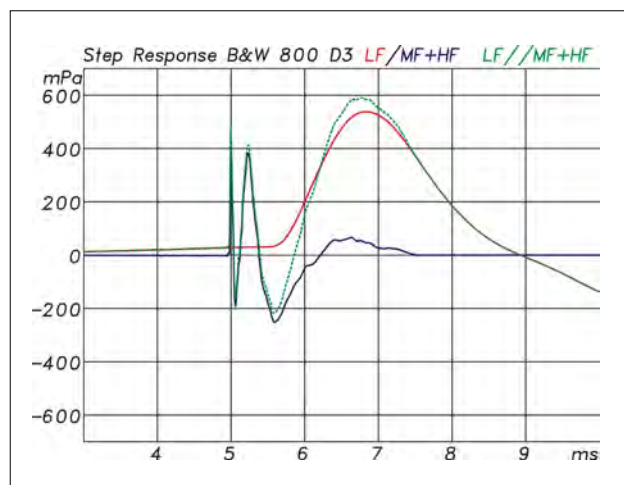


Fig. 5: Step response of the B&W 800 D3 in green. The woofer is shown in red and the mid- and high-range tweeter unit in blue.

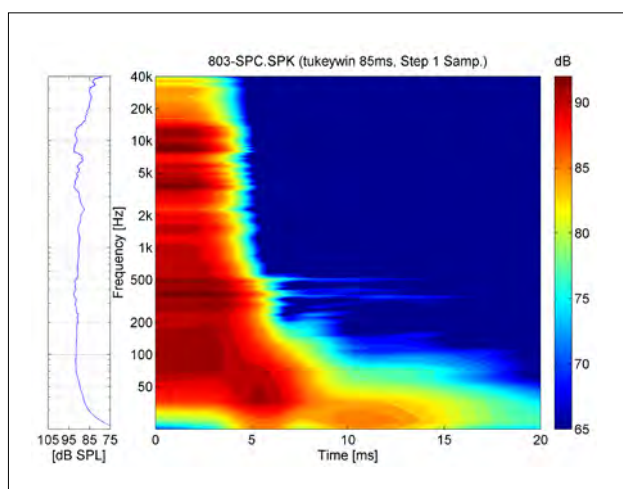


Fig. 6: Spectrogram of the B&W 800 D3 with virtually perfect decay behavior. For a better representation, the pulse start was mathematically determined as 5 milliseconds.

The corresponding phase response from Figure 4 is less spectacular and broadly reflects the minimum-phase portion of the three-way combination. At the lower end of the transmission range there is 360-degree phase shift due to the fourth-order high-pass behavior of the bass-reflex cabinet. In the further course, the phase shifts a further $2 \times 360^\circ$ due to the transitions between the paths. The low-pass filter for the woofer is designed as a fourth-order filter. The high- and low-pass filters for the mid- and high-range tweeter are designed to be less steep; but in conjunction with the acoustic behavior of the paths, they also result in fourth-order transitions.

The phase response from Figure 4 is reflected in the step response from Figure 5. No time offset between the paths can be seen. The progression of the step response broadly corresponds to what results from a fourth-order high-pass filter corresponding to the bass-reflex cabinet and both X-over filters.

The decay behavior of the 800 D3 is shown in the spectrogram in Figure 6. The B&W drivers' special diaphragms and the housing design are able to demonstrate their qualities in this area. The decay behavior is virtually perfect. There is hardly any resonance, even at the highest frequencies. The longer reverberation at low frequencies results from the runtime behavior of the bass-reflex cabinet and therefore has a "natural" cause. This could be remedied with a closed housing and/or with the support of digital FIR filters, which can help provide a broadly linear phase response to a loudspeaker in active operating mode. Newly developed design methods for this type of filter enable this even in the case of tolerable latency of 10 milliseconds or less. At this point, you may be curious as to whether or when an active version of the 800 D3 will appear. The rear panel of the housing already suggests that active electronics may also find their place here in the future. ►

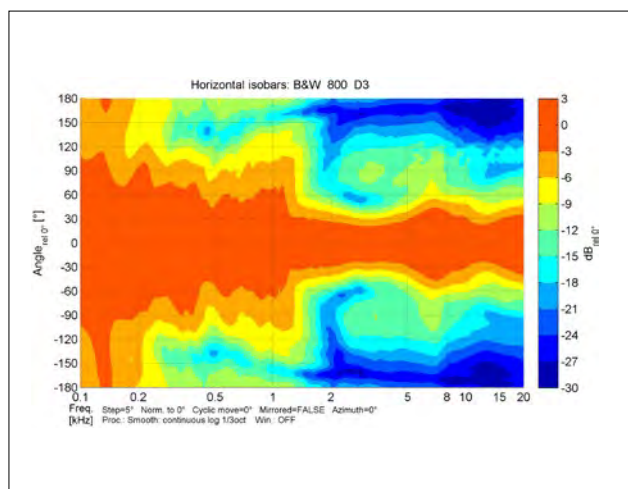


Fig. 7: Horizontal isobar curves relative to the center axis. The transition from orange to yellow represents the limit for a 6.0-decibel-level drop against the zero-degree axis.



The naked tweeter with its legendary „D“-Membrane

Isobars and room acoustics

A loudspeaker's sound dispersion decides the extent to which the surrounding space is included. A distinction is made between the proportion of direct sound, which reaches the listener without any detours from the source (loudspeaker), as well as the early reflections and the diffuse field in the room. The latter is directly linked to the room's reverberation time. The early reflections are primarily generated as a result of sound-reflecting surfaces and nondispersive surfaces near to the source or the listener. How pronounced these early reflections appear and the extent to which a room's reverberation is stimulated in relation to the direct sound is linked to the directivity of the source. Regardless of the loudspeaker's behavior, the setup in the room should be as symmetrical as possible and the rear wall behind the listener should either be diffusive or absorbent. Laterally, there should be a certain distance between the loudspeakers and the walls, which should ideally also be designed to be dispersive or absorbent. With regard to a listening room's flooring, it's always advisable to have a thick rug at least in one section between the loudspeaker and the listening position. This will efficiently reduce an initial hard reflection for mid and high frequencies. With a normal stereo monitoring situation,

a mean reverberation time of 0.5 second is recommended that should not increase too much at low frequencies.

When choosing a loudspeaker, more directional systems are preferable for reverberant rooms because a better direct sound to diffuse sound ratio can be achieved. The source localization and playback clarity improve as a result. Loudspeakers in the form of a long row of emitters are therefore ideal for acoustically challenging spaces.

The emitter surfaces and their interaction determines a loudspeaker's spatial sound dispersion. Large diaphragms focus the sound more than small ones, with the decisive factor being the expansiveness of the emitter surface in relation to the wavelength. Other factors include the housing with possible edge effects and the transition between the paths with the gradient of the separation.

Let's first take a look at the isobars of the 800 D3's horizontal plane from Figure 7: Here we see by and large equally broad sound dispersion up to approximately 1.2 kilohertz where the isobars then rapidly narrow to an opening angle of about 90 degrees. The reason for that could be the special shape of the mid-range's housing, the diameter of which coincides with the wavelength there. When the tweeter is used, the isobars then widen a little again. ►

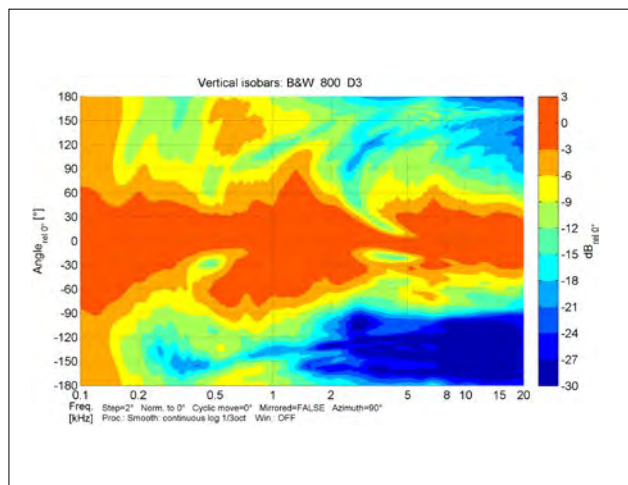


Fig. 8: Vertical isobar curves relative to the center axis. Interference effects can be seen around 500 hertz and at 3.5 kilohertz in the transitional areas.

The vertical isobars (Figure 8) are heavily dominated by the interference the paths have on each other. In the transitional areas around 500 hertz and 3.5 kilohertz, either the woofer and mid-range or the mid-range and tweeter work together. This results in a broad emitter with correspondingly narrow directivity. Depending on the angle, phase shifts between the paths with corresponding interference effects will also occur. Between the two narrow points at the crossover frequencies, the isobars widen again where the mid-range works alone. Such behavior is typical for multiway loudspeakers with drivers arranged one above the other and fundamentally cannot be prevented. At best, the transitional areas could, particularly with active systems, be reduced by means of a steeper separation. If you want to prevent the interference effects altogether, the only option left is to coaxially arrange the paths. This, however, introduces other new problems.

To summarize the discussion about the sound dispersion of the 800 D3: The horizontal opening angle above 1.0 kilohertz, which is relatively narrow for a hi-fi loudspeaker, is very advantageous, and the isobars are very nicely uniform. The same also applies to the vertical, which is, however, unavoidably somewhat more turbulent.

Maximum levels and distortion

To measure distortion, we used two standard methods with sine bursts and a multisine wave signal. First, let's consider a series of measurements from Figure 9. Here, distortion limits of 1% and 3% were prescribed; we then determined the maximum sound pressure level of the speakers at a one-meter distance under free field conditions. This measurement algorithm also includes a power limit to avoid overloading and possibly destroying any speakers that exhibit low distortion. The measurement is taken in three stages: first, up to 500 hertz with 185-millisecond-long sine-burst signals and a maximum of 500 watts of power relative to 4.0 ohms; from 500 hertz to 3.0 kilohertz with 46-millisecond-long bursts, also with a maximum of 500 watts; from 3.0 kilohertz upward, the power was limited to 50 watts in order to protect the tweeter. Where the two curves coincide, the measurement was limited by the power level, not by the distortion.

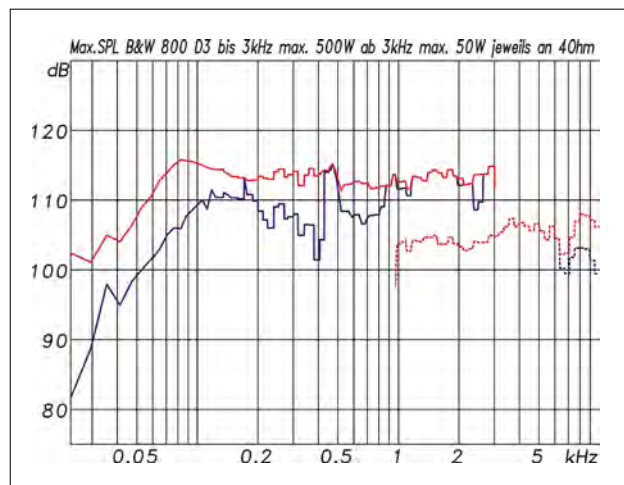


Fig. 9: Maximum level at not more than 1% distortion in red and not more than 3% distortion in blue. The maximum power was 500 watts at 4.0 ohms. This measurement was performed with 185-millisecond-long sine bursts.

The result of that measurement for the 800 D3 was excellent. Over wide ranges, a maximum level of just below the 115-decibel line was achieved without any discernible weak points. In line with the fact that the power was limited to 50 watts, the tweeter was 10 decibels lower. Additional measurements with greater power probably could have been made here, but we didn't want to risk destroying the tweeter (and its diamond diaphragm). The point of this measurement involving sine bursts was primarily to uncover any possible weak points in certain frequency ranges that would have become apparent in the form of slumps in the curves. But you often hear people asking about a loudspeaker's maximum possible level under practical conditions—that is, “how loud will it go” with a typical music signal? A distinction needs to be made between the peak level, which can be achieved for short pulses, and the equivalent continuous sound pressure level. The latter is the usual value for level specifications, for example, in the recording studio when it's stated that the normal monitoring level is 85 dBA, where the A-weighting has also been added. However, no statements can be made regarding these values with a sine-burst measurement because broadband excitation is required.

Multitone measurement is optimally designed for this. The basis of the multitone signal is formed of 60 random-phase sinusoidal signals, the spectral weighting of which can be set as desired. The weighting of an average music signal (green curve) was chosen for the measurement in Figure 10. The crest factor of the measurement signal synthesized in this way, which describes the ratio of the peak value to the effective value, has a practical value of four, corresponding to 12 decibels.

For the distortion value derived from this type of measurement, all spectral lines not in the excitation signal are added together—that is, signals that have been included as harmonic distortion or as intermodulation distortion. It's important to ensure the excitation signal frequencies are generated in such a way that they do not coincide with the harmonic distortion; otherwise, they can no longer be analyzed. Also with this type of measurement, the level is increased until the total distortion (TD) reaches a certain threshold or the loudspeaker's performance limit is reached. Due to the test signal's high crest factor, however, the maximum output voltage of the respective amplifier is usually the limiting element in the chain. ►

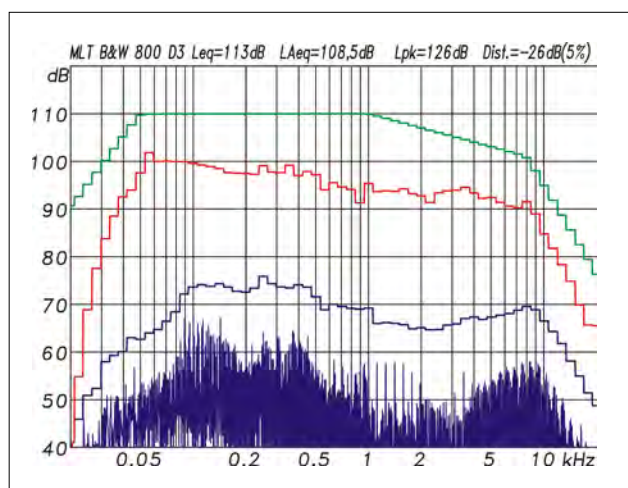
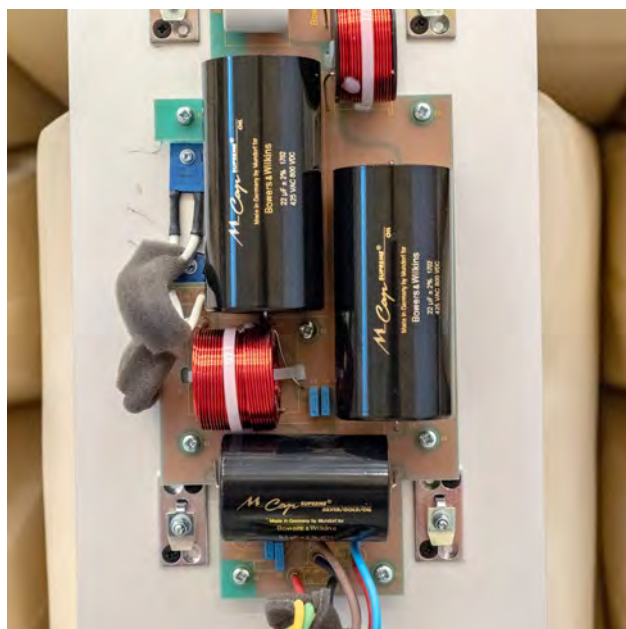


Fig. 10: Multisine measurement with the spectral distribution of an average music signal and a 12-decibel crest factor.

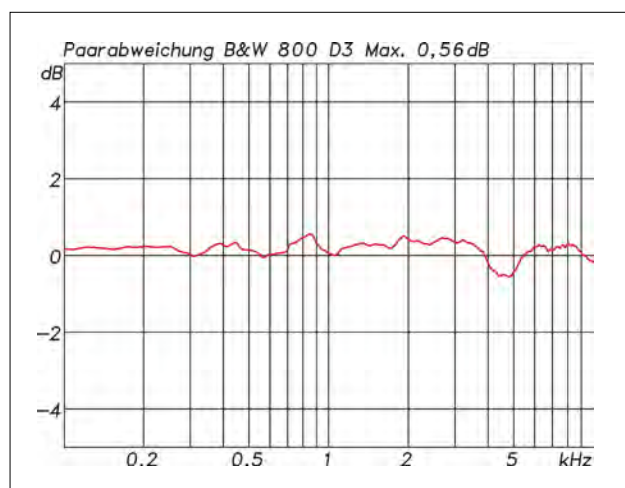


Fig. 11: Pair variance of both B&W 800 D3 speakers tested.

To protect the loudspeaker, the maximum peak voltage for the 800 D3 was limited to a peak voltage of 141. With a signal crest factor of four, this corresponds to an effective value of 35 V_{eff} and at 4.0 ohms power of 300 watts or 150 watts at 8.0 ohms Ω .

Under these conditions, the 800 D3 achieved a peak level of 126 decibels for a typical music spectrum in accordance with EIA-426B at a distance of one meter in the free field under full space conditions. The equivalent continuous sound pressure level was 113 decibels unweighted and 108.5 decibels with A-weighting. This is high, actually very high. Respect! Large rooms or high-level requirements are therefore no problem for the 800 D3, provided the power amps deliver the corresponding voltage. Of course the 141-volt peak voltage and 126 decibels will hardly be required for “normal” listening. Good results will be achieved even with 10 decibels less—that is, with a power amp that delivers a solid 250 watts

at 4.0 ohms. What’s particularly pleasing is that even with these extreme test values, total distortion was still only 5%.

The graphic in Figure 10 illustrates the spectrum of the excitation signal (green curve), the measured spectrum of the signal emitted by the speaker (red), and the resulting extracted distortion (blue). Both are depicted as a sum total in one-sixth octave bandwidth.

One more final measurement (Figure 11) concerns pair equality, which is mainly important for accurate center localization and stable source reproduction. According to specifications for studio monitors, the deviation should not exceed 0.5 decibel between 250 hertz and 2 kilohertz, a requirement both of the 800 D3 speakers tested easily fulfilled. A slightly larger deviation of 0.56 decibels exists just between 4.0 kilohertz and 5.0 kilohertz. ►



Conclusion

As the author of a test report, you ask yourself which aspects are important in assessing a hi-fi loudspeaker before you sit down to write the conclusion. As much as possible, you need to disregard personal preferences. So what does that leave? The measurement values, the listener's overall impression, and the quality of a product's workmanship. The latter, in particular, plays a significant role in the case of pricier products. For its part, the B&W 800 D3 meets the highest standards of quality workmanship. All parts, both those you can see and those you can't, are perfectly crafted. Both the look and the feel of the loudspeaker exude exemplary perfection, and, to be honest, you wouldn't expect anything less. Moving on now to the measurement values, it's the low levels of distortion and the high level of stability that really stand out with this loudspeaker. The frequency response is not absolutely perfectly linear; but with a variation of ± 2.6 decibels, it's very uniform, especially for a passive loudspeaker, and with cut-off frequencies of 29 hertz and 30 kilohertz also very broad.

Despite the extensive 800 D3 audio test already published in FIDELITY Magazine No. 37 (German print edition), another short listening session with Ingo Schulz was also scheduled after the measurements. As usual,

this took place in the large low-reflection room that behaves fully neutrally, but still really puts loudspeakers through their paces as the room offers no support in the form of a diffuse field. Low-level loudspeakers quickly reach their limits here. The room also enables perfect source localization, which immediately demonstrates how precisely a loudspeaker reproduces a source. The 800 D3 successfully achieved both: high levels and source reproduction. The dynamics in the reproduction could make even many a large horn loudspeaker green with envy. It was such a joy to listen to, regardless of the music choice. If I had to summarize the playback in just a few words, I would describe it as "appealing," "confident," and "neutral."

As a last comment, it's worth mentioning the many, many innovative features that can be found in the 800 D3's design and, above all, in its drivers. They will excite all the techies out there: This is where this manufacturer stands out from most of the competition. Taking all of this into account, it has to be said that the B&W 800 D3 is a real value for the money and, in conjunction with a comparably solid power amp, it will provide many years of joy.

The price for a pair of 800 D3 loudspeakers totals exactly € 30,000. Regardless of whether you're prepared to spend that much on a pair of loudspeakers, this holds true: They're worth every single cent. ■



A TRIBUTE TO OUR EDITOR IN CHIEF AND
IRREPLACEABLE FRIEND CAI BROCKMANN
(SEPTEMBER 7, 1964–JULY 27, 2018)





If at night one last desk lamp might be seen still shaking to a beat, then it had to be Cai Brockmann sitting at the drum set that swallowed up so much of his office and playing just for the sheer joy of knocking out a beat. Moments like these might best capture what lies at the heart of music, a world that shaped much of his life. Cai, the active bass player and drummer, the passive connoisseur, and the incorruptible professional listener, forged his personal and professional lives in his passion for good sound and electric blues.

Turning dissonance into harmony and spreading mirth were talents that enabled him to always nudge life back into equanimous balance. He was the master of equilibrium, the reasonable compromise, and the simple, direct solution. He brought this balance to life everywhere he went, whether fine-tuning a high-end stereo system or defusing a conflict.

As the cofounder and editor in chief of FIDELITY, “Capt’n Cai” led our magazine through some stormy seas, always sailing hard against the wind until it reached more tranquil waters. He was the anchor, the foundation and the face of FIDELITY. During the decades he took part in, shaped, and molded Germany’s hi-fi scene, his passion never waned and his curiosity never flagged. Cai was someone who always got a charge out of new equipment and who would share this excitement with

others. He was neither a dry technocrat nor a gullible bystander. With his relaxed way of reporting on hi-fi, he was an original force. In the process, he freed this area of specialty journalism from its tight corset and took it places that extended far beyond the realm of technical minutiae. Colleagues, manufacturers, retailers, and, not least, readers were fortunate to call him a friend, a man who continually reminded us all over and over again that hi-fi was, above all, about pleasure.

On July 27, 2018, the loving father Cai Brockmann was torn from the arms of his wife, Helene Lerch, and their grown son, Julius. The Hamburg native tragically and unexpectedly passed away at the age of 53, fully in the middle of his vibrant life. Capt’n Cai still had much in front of him. He was pursuing a steady course, had major plans, and certainly had not heard everything that was still left to be heard. We are at a loss today. We cannot fathom a trade fair, concert, or evening or night of music without him. Our magazine has been deprived of its heart, head and soul, yet we want to continue FIDELITY in Cai’s spirit and in his honour. Our condolences go out to the bereaved, his wife and our colleague Helene Lerch, his son, his brother and his parents. The members of the editorial staff and the authors are deeply affected and mourn the painful lack of a good friend. ■

THE RESONATING LOSS OF A VIBRANT MAN: DAVID WILSON, FOUNDER OF WILSON AUDIO, PASSES AWAY





David A. Wilson II
 * September 8th, 1944
 † May 26th, 2018

David Wilson designed his loudspeakers to give listeners a musical experience akin to being in the great European concert halls and opera houses that he loved so much. The sense of being live served as his standard and perfectly reconstructing this became his self-imposed, greatest goal. The founder of Wilson Audio not only resisted thinking this goal was unattainable, he also resisted succumbing to the difficulties his company experienced in the early years after its founding in 1973, difficulties that almost drove his family and him into ruin. But more than anything else, Dave Wilson defied the insidious bone-marrow cancer that made its appearance at the end of last year. It was, perhaps, the only fight in his life that he had no chance of winning.

But Dave never thought of giving up. He brought the highest level of ambition to his last major project, the WAMM Master Chronosonic, in the process continuing the same professional trajectory he had initiated in 1981 with the WAMM Series 1. As a connoisseur of classical music, an erudite spirit, and a deeply religious man, Dave also did not fail—like so many notable individuals—to think beyond himself and initiate the steps to his succession early on and devoid of vanity. Many years ago, he began to gently introduce his son Daryl to the great task that now lies ahead of him.

At the end of May we received the heart-breaking news that Dave had passed away. He was 73 years old. Our thoughts are with his widow, Sheryl Lee Wilson, who had always believed in Dave's ideas and who stood by him even when Wilson Audio seemed doomed, and to his children, whom we wish the strength needed to continue the company in the spirit of his father.

Dave was not torn from life; he had completed his life in the best sense. Perhaps it's inappropriate at this point to try to extend comfort, but we are pleased that Dave was granted the chance to follow his way to a successful end. We hope all the bereaved—not only his family, but also his employees, friends, and companions—will feel comfort despite all the sadness and pain of this loss when they look back on the life Dave led as he designed his speakers: It was as perfect as possible.

We earnestly hope that David Wilson, a deeply religious man, is now in that place of paradise, a place where the difficulties and resistance that his mission experienced during his lifetime no longer exist. But we also think that if something isn't perfect in paradise, Dave will find a way to modify and improve it. There will be busy times to come in the afterlife. ■

FOR ITS 40TH
ANNIVERSARY,
IN-AKUSTIK IS
CROWNING ITS
CABLE LINEUP WITH
AN IMPRESSIVE
TOP MODEL.





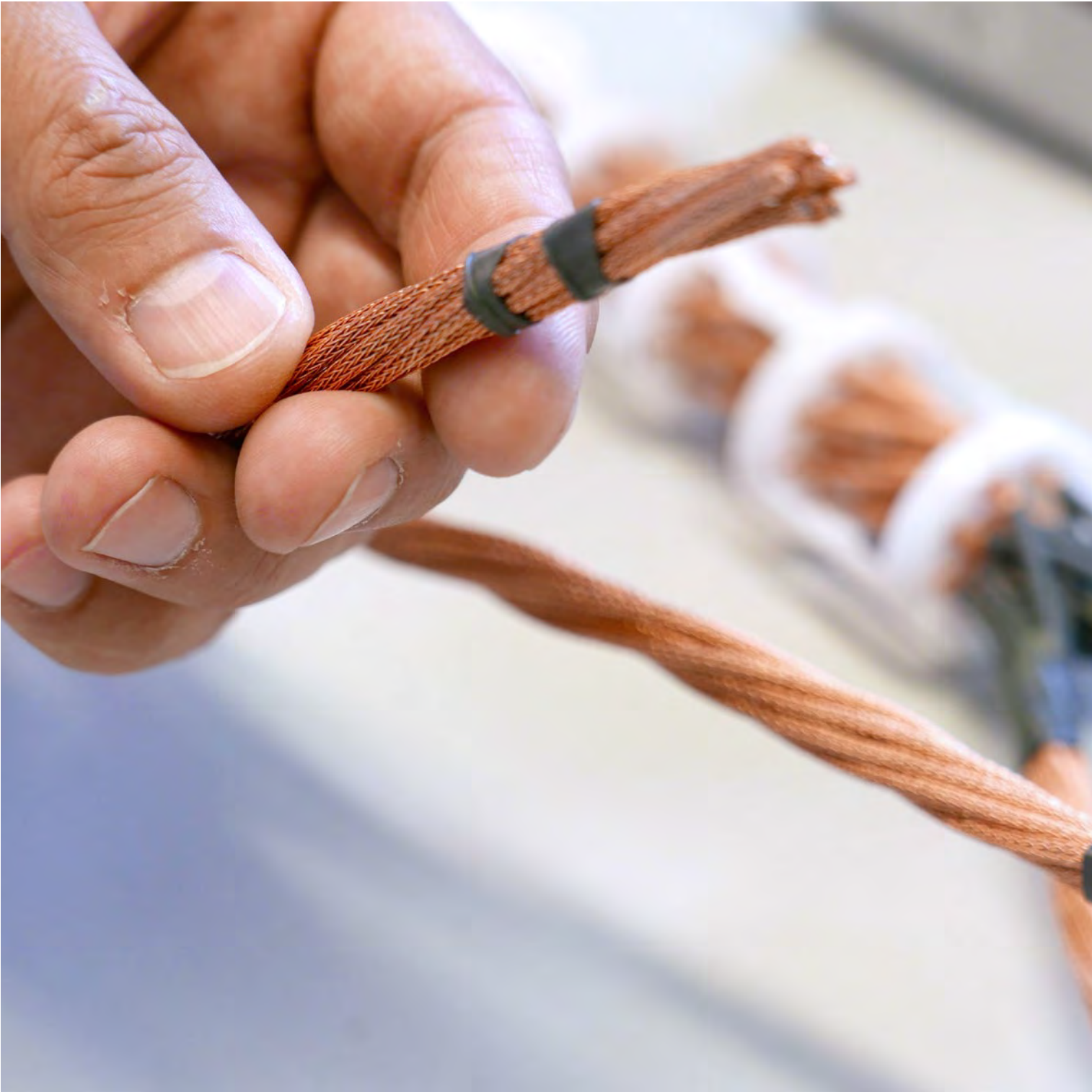


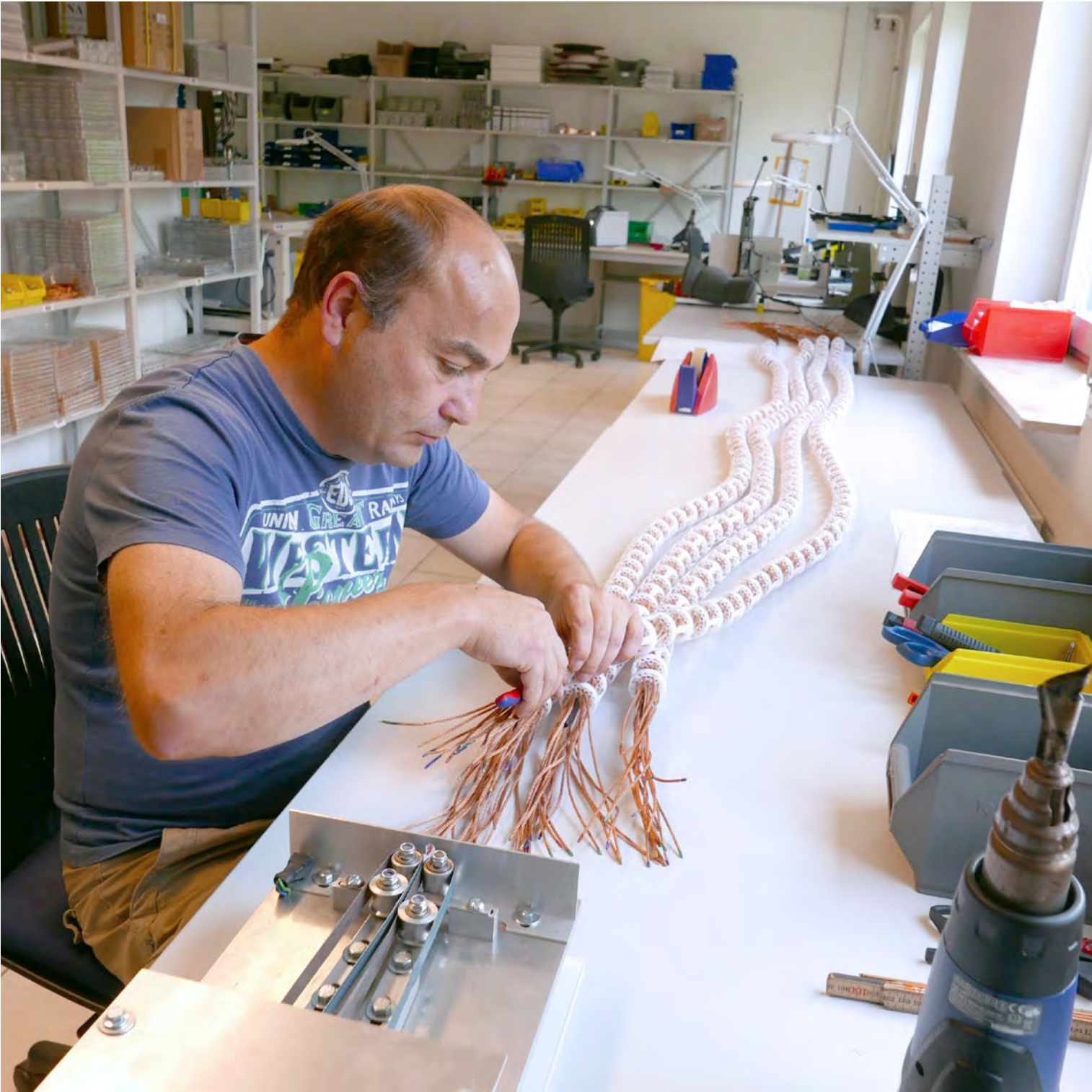
in-akustik Referenz LS-4004 AIR

HELIX TO HEAVEN

By Michael Vrzal. Photography: Ingo Schulz







Incorporating air insulation:
The AIR series from in-akustik
calls for a lot of meticulous
craftsmanship and is of
course "made in Germany."



Get ready to save the stereo. With a cable. A crazy idea, but hey: Cables do make a difference, so why not?

The power strip for the black background, the NF cable for the room, and with the right speaker wire we can also take care of our thunderous bass.

Objection!

No cable can save a system that's been poorly set up. Or iron out a twisted frequency response. A cable is not an equalizer. It has just one job: to take an output signal to the receiver without damaging it. A cable is very good if it can brighten the qualities of a fundamentally harmonious system. Under the right circumstances, an excellent cable can work a small miracle. And speaking of miracles: The spotlight is on the in-akustik LS-4004 AIR, a low inductance and low capacitance speaker cable in the presence of a high-class electronic component. It's the top model from the manufacturer based in southwest Germany and marks the next step in the clever AIR design first introduced with the LS-2404 AIR.

As with that model, this one features the company's "Cross Link Super Speed waveguide" in the form of lacquer-insulated copper wires in a double layer without insulating sheath braided around a PE core, the main component of the cable. In the case of the LS-4004 AIR, 16 of these strands are threaded through perforated discs, or clips—twice as many as with the little brother LS-2404—resulting in 19.2 square millimeters of copper. Twisting the clips against one another gives the cable its final helix form. A semitransparent PE sheath lets the observer appreciate the significant amount of craftsmanship that goes into its assembly.

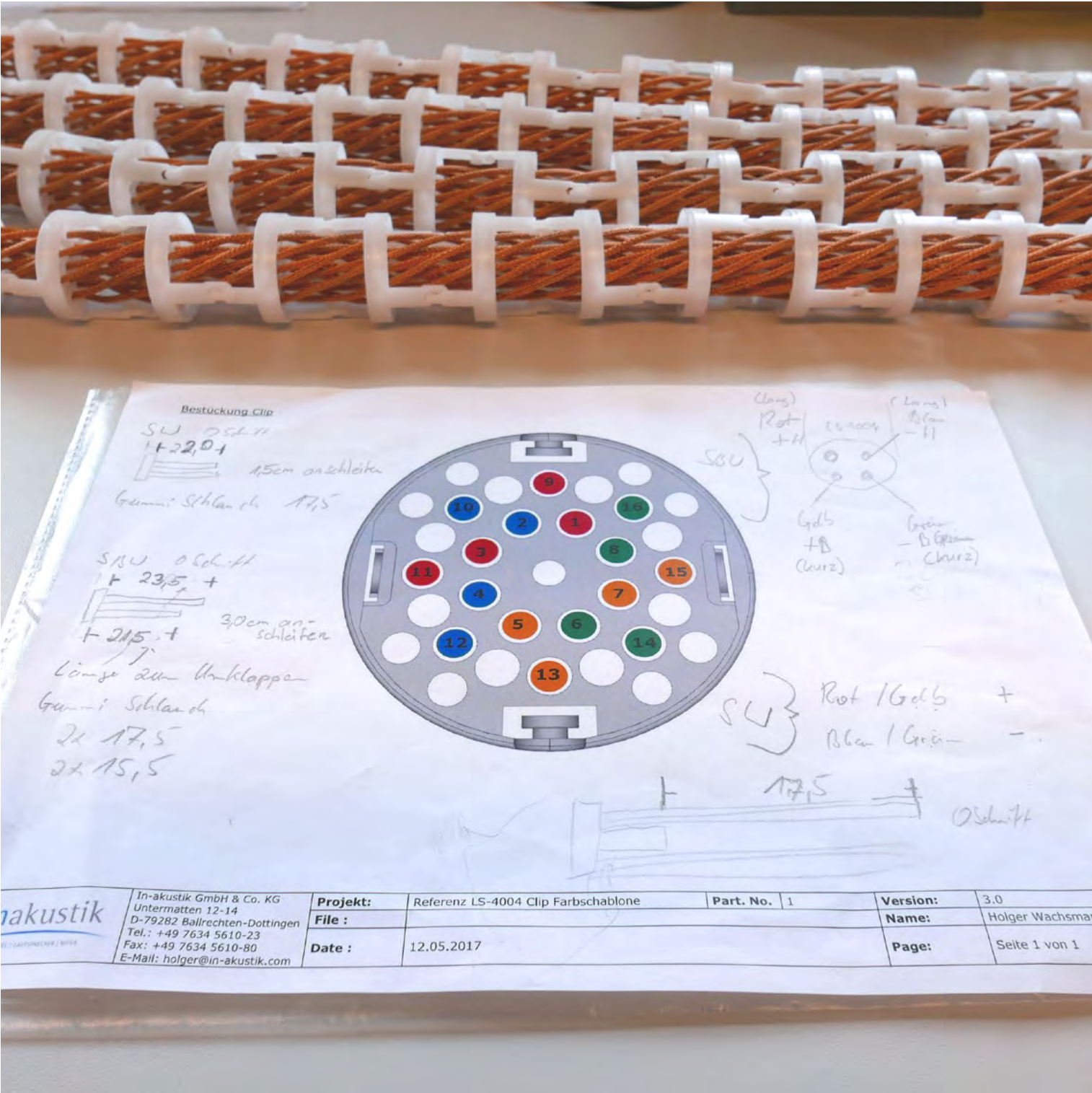
The design of the LS-4004 AIR draws from the fact that, just as the conductor material influences the transmission properties with its profile and purity, the immediate environment of the cable does this as well. The nonconductive material located in the direct area of influence of the electromagnetic field around the conductor is the dielectric. Every dielectric, regardless of whether it's solid, liquid, or gas, interacts with the useful signal. The lowest dielectric losses are exhibited by a conductor that's freely suspended in the air. In the LS-4004 AIR, the sheerest layer of lacquer insulating the fine copper wires forms the only effective dielectric layer. Apart from that, the main element is: Air. The AIR cable is assembled using crimping technology and specially designed rhodium-plated terminals made of tellurium copper (the alloy produces mechanical properties favorable for milling) that can optionally be finished with cable lugs or banana plugs. The user can individually adjust the angle at which the banana or lug protrudes from the cable. It's a great idea, but the torque needed to get a firm hold is asking too much of the slim Torx key included with delivery, so it's best to find a proper tool for this task.

The hinge design with the thickness of a fire hose is visually imposing, but it proves to be lightweight and gentle on the socket when in use. The clever clips also provide welcome flexibility. When space is tight, it's easy to reposition and it most definitely won't pull the compact speakers or amplifier off the shelf.

Right from the start, the LS-4004 AIR was astonishing. Once integrated into the system, it wasn't so much its presence that was noted, but the absence of the sound signature of the familiar connector. We weren't suddenly greeted with clearly

identifiable qualities, no frequency bands, spatial dimensions, or subtle shades that warrant explicit praise. In a nutshell, the LS-4004 AIR lets users see what's lacking in their standard cables—and the potential still lying dormant in the system itself. Because cables represent passive electric components with a complex mix of properties (keyword: equivalent circuit; each cable has a resistance, a capacity, an inductance and impedance), I intended to put the test object through its paces in the most varied environments as possible. At home, I put my Naim power amp (an old school transistor with low damping factor) and the Silbatone integrated amplifier JI-300B Mk III complete with 300B triodes to work. Outside of my own four walls, I selected a powerful integrated amp from Accuphase, fine three-way compact speakers from KEF, and, as a more exotic choice, a high-efficiency chain equipped with tubes.

The Silbatone was surprisingly calm when it came to having its familiar speaker cable replaced. Not that my standard cabling from Fadel has a bad pedigree. But I was hoping for a little more of a wow factor. Great, the sound did seem more relaxed. And more open, unfettered. I let some time pass and listened to music a little longer each day. Without any significant split testing I found the amp with the in-akustik to be more commanding and to play a bit louder. The music flowed effortlessly into my ear and from there coursed right into my stomach. My goodness—that was fun! The LS-4004 AIR blended in with my Naim and the Ayon speakers as if it had been made for just this combination. The music buoyantly poured from the speakers, clearing the way for all the sentiments stored on the recording. I couldn't identify any preferences in sound quality, ▶







whether darker or brighter. The deepest bass—not the best event for the Naim—seemed to own the room with previously unheard-of confidence. Not in the sense of “more bass,” but as a more extensive spectrum. Then on top there were the overtone subtleties, three-dimensionality, sound displacement, and the finest in dynamics. This cable has what it takes to lift the performance of my chain into the next higher class! Use of it in the harmonious Ac-cuphase-KEF chain almost created a

touchstone for a friendship. The difference between the not-too-bad entry-level strip of the system owner and the super-cable from the Black Forest was so great that it prompted me, with some cursing, to seriously go and check the balance of my bank account. In listening, the in-akustik practically liberated the music from a cor-set—The test was a true wow experience! The “carte blanche” tube chain was also good for a surprise. Once again I was treated to more as I listened—more air, more plasticity, more information—but

the “house” cable also demonstrated explicit synergies with its accompanying equipment. It was logical to assume the designers of the system specifically harmonized the amplifier and speaker load and selected an appropriate “collaborative connector.” A very interesting encounter that conclusively complemented past experiences. As visually imposing as the in-akustik LS-4004 AIR appears, it remains a team player of utmost seriousness. There’s no spectacle with this cable; no ►



The epitome of convenience: The offset angles of banana or cable lug connectors are practically freely adjustable.





No other super cables out there can be installed more flexibly than the AIR models. And yes, that also applies to the 4004.



manufacturer statement calling for blind faith. Everything about it is visible and comprehensible: from the copper conductor material to the woven pattern of the individual conductors that suppresses the formation of eddy currents and the open structure with no mysterious correction elements through to the practical design of the plugs.

But can I also call the sound of in-akustik's top model "serious"? I'll simply do it. The indeed highly serious LS-4004 AIR sounds like its name: airy, insightful, and transparent. It captivates with its noninterference. During the testing period, I focused on the music at all times and what

I heard consistently sounded more exciting and more emotive with the in-akustik than with any other connector. Let's just forget the price tag: The LS-4004 AIR is a phenomenal speaker cable. Period. ■

Speaker cable | in-akustik LS 4004 AIR

Setup: Air-Helix, 16 Cross Link Super Speed waveguide, each 1.2 mm² | **Special features:** directly crimped connectors made of Tellurium copper with adjustable angle; bi-wiring option (€300 surcharge) | **Warranty period:** two years | **Price:** €5,600 (2x 3 m, single-wire assembly)

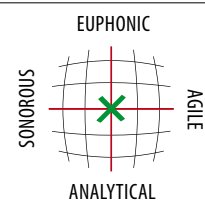
in-akustik GmbH & Co. KG | Untermatten 12-14 | 79282 Ballrechten-Dottingen | Germany | Phone: +49 7634 5610-0 | www.in-akustik.de

ACCOMPANYING EQUIPMENT

Turntable: Bauer Audio dps 3 | **Tonearm:** Bauer Audio Tonarm | **Cartridge:** Lyra Kleos | **Phono amplifier:** Bauer Audio Phono | **CD player:** Electrocompaniet EMC 1 UP | **Integrated amplifier:** Silbatone JI-300B Mk III | **Pre- and power amplifiers:** Naim NAC 202/ NAPSC, NAP 200 | **Loudspeakers:** Ayon Seagull/c | **Cables:** Chord Company, Fadel, Naim, Nordost, Sun Audio | **Power supply:** Music Line Powerigel: | **Accessories:** Bauer Audio Rack

in-akustik LS-4004 AIR

Thick but flexible. Expensive but cost efficient. Infinitely detailed but musically integrative—a phenomenal speaker cable!



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

BROWSER

№ 02

Papa's Got A Brand New Bag

Who doesn't dream of going to the phono stage shootout or to the trade fair presentation in full style and making the Vinyl-in-jute-bag-carriers look old? The new Record Bag from Clearaudio guarantees envious looks, especially since there is room in the transparent flap to present your favourite LP. The best thing about the Record Bag with car seat belt as a carrying aid: It costs only about as much as a Stones first pressing.

www.analogshop.de

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BROWSER

Nº 02

Nordost Cables at EastSide Sound

EastSide Sound's chief engineer, Marc Urselli, recently installed Nordost cables at the Manhattan-based recording studio, EastSide Sound where they will be used to record Newvelle's fourth season of jazz recordings. Nordost is thrilled that their product was invited to take up permanent residency at such a well-respected studio. EastSide Sound is the recording studio where Marc Urselli has either recorded or mixed iconic musicians such as Sting, U2, Eric Clapton, Keith Richards, Peter Frampton, Jack DeJohnette, Esperanza Spalding, Lou Reed, and Nick Cave.

www.nordost.com

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BROWSER № 02



McIntosh Announces MC462 Quad Balanced Power Amplifier

The MC462 replaces the highly regarded MC452 as our most powerful stereo amplifier. Like the MC452, the MC462 features a robust output of 450 Watts per channel. With a dedicated McIntosh Autoformer™ connected to each audio channel, the full 450 Watts is available to any speaker regardless if it has 2, 4 or 8 Ohm impedance. Aesthetically, the MC462 retains all the hallmarks of a McIntosh amplifier with a few key modern enhancements. The front panel now utilizes direct LED backlighting that improves color accuracy and appearance.

www.mcintoshlabs.com

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Genuin Audio: The evolution of the speaker

Nothing less than a generation change is announced by Genuin Audio with its digitally controlled, fully active 'neo' speaker. The heart and brain of the acoustic transducer is a 32-bit signal processor, which not only replaces a conventional crossover, but also perfects the time and frequency behaviour of the three drivers, and can also be adapted to the spatial environment. The 6.5-inch coaxial driver and the side-mounted 12-inch bass have their origins in the professional range and are controlled by an internal four-channel amplifier with a total output of 1000 watts. A pair of neo is 17,500 Euros at Genuin Audio.

www.genuin-audio.de

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BROWSER N° 02



BROWSER

№ 02



Focal: stylish sound and colorful splendour

Listen Wireless Chic is the name of Focal's first wireless closed headphones with Bluetooth 4.1 aptX compatibility. The french headphones guarantee an outstanding sound experience with their innovative drive (titanium-mylar membranes!) and large ear cushions thanks to memory foam offer maximum wearing comfort. 20 hours battery life with only three hours charging time offer maximum freedom of movement and probably also sufficient opportunity to show one of the chic colour variations. But whether in metallic shiny blue, olive, purple or black—the Focal Listen Wireless Chic is in the retailers' price list at 249 Euros.

www.focal.com

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Jean-Pascal Panchard (privately), Stenheim (officially)

EXPLORING FAR-FLUNG HORIZONS!

By Cai Brockmann. Photography: Cai Brockmann





A flourishing fanfare and a warm welcome! The blanket of clouds began to break up at just the right time, and the very first rays of spring sunshine burst through. Wasn't Zurich still plagued with incessant gray clouds and never-ending traffic jams? I could let go of all those thoughts now as I

headed west under a bright blue sky. It was my first time traveling through Romandy, the French-speaking part of western Switzerland, and I have to say the landscape was truly amazing. I fell under the spell of Montreux and Lake Geneva and cruised from one picture-perfect alpine panorama to the next: Sun-kissed, snow-capped mountain tops, craggy vineyards, and ►



apricot orchards in hibernation as far as the eye could see as well as signage I half understood even without any school French. In short, the drive put me in just the right frame of mind for what was awaiting me at my final destination: ultra-luxury loudspeakers.

Where exactly is Stenheim, anyway?

It may sound like a quaint little village, but it's actually not a place. Stenheim is the name of an exclusive loudspeaker manufacturer, one whose products have been impressing the FIDELITY editorial team for quite some time now. The compact Alumine Two model, for example, was “parked” in our listening room for a

couple of weeks at one point. It impressed us with its crisp dynamics but didn't (quite) manage to make its way into our already overloaded editorial schedule. The rather grandiose Stenheim Alumine Five has thrilled us with its outstanding performance at many a hi-fi show. And now I was suddenly presented with the opportunity to take time to experience one of the two *even more* extravagant top-of-the-range models (which have still yet to appear in the German price list). What's more, I was getting to do this in the perfect setting for any Stenheim: the boss's private living room—probably the company's most important listening room. So something definitely worth a trip to Romandy and the canton of Valais, especially as it fit so neatly into my already jam-packed calendar... ►

High-brow barn

Thanks to my trusty GPS, I reached Stenheim and ultimately Jean-Pascal Panchard's residence as the Alps' shadows grew longer but before sun had set. Here is where the Stenheim boss owns and uses an exceedingly imposing audio system. In and of itself, that's not particularly unusual for a high-end audio developer. Far more tantalizing is the fact that Monsieur Panchard and his private system recently moved out of the estate's main building and into a former barn on the premises. Why did that happen? Well, because it was revamped both in terms of style and substance by an architect friend of his. Since being completely

overhauled, the former barn is now both a treat for the eyes and for the ears. Whether as a realist you think this building offers "musical enjoyment with panoramic Alpine views" or as a hi-fi enthusiast "mountaintop views with a panoramic music system," either way, the otherwise impressive main house simply can't compete.

The open-plan, music-focused living room of the Stenheim CEO boasts a net floor space of 53.0 square meters and a ceiling height of 3.8 meters, which even increases to about 5.2 meters at the gable. This made it possible to both realize access to the smaller patio on both sides of the system and create a large window area that goes "over and above" in the truest



Even a superbly equipped Clearaudio Innovation fades under the gaze of a Stenheim Reference Ultime made from "freshly milled" aluminum. So, too, does the bright-blue Charles Brandt cabling. The sofa, on the other hand, represents both the sweet spot and a color contrast.



sense of the expression, and lets you savor a completely unspoiled mountaintop view while listening to music. I'm tempted to say you can almost have too much of a good thing... That, of course, is not true, and I'll get to the details later on.

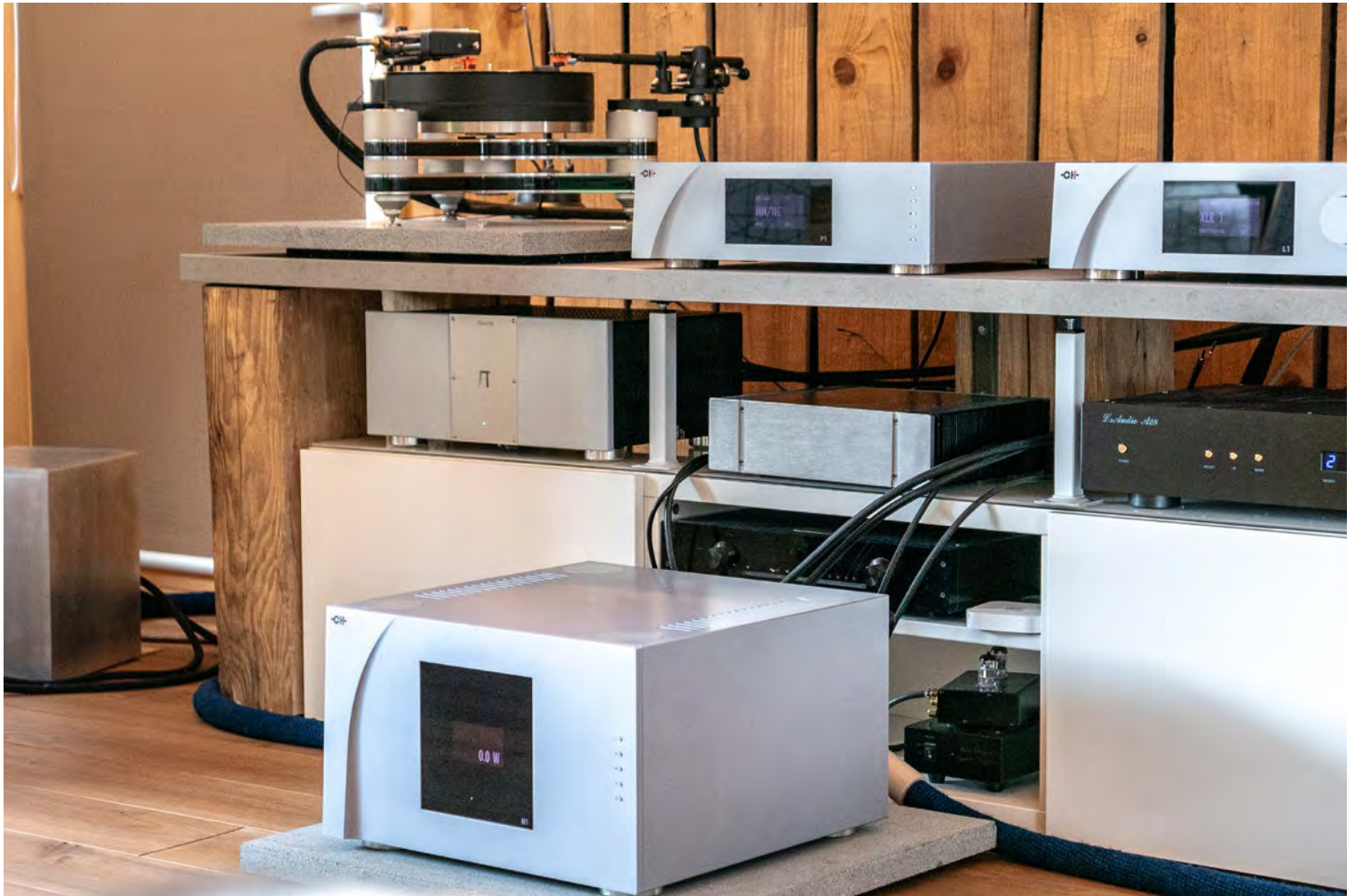
The architect, Yves Coppey, has managed to create an ambiance that successfully marries the romantic charm of a barn with hi-fi luxury. Reminiscent of its former use, the building has an abundance of wood throughout as well as a sturdy structure that displays ample ability to handle extremely heavy loads. The large, substantial room also provides a wealth of space for activities that go beyond audiophile exploits and, despite the adjoining open-plan kitchen and mezzanine, sounds "naturally" great. In fact, according to a very pleased Jean-Pascal Panchard (JPP), no special acoustic

tuning has ever been required for getting even top high-end systems to achieve peak performance or for testing audiophile prototypes, or for fine-tuning the sound quality of Stenheim products—often one and the same thing. These are the things JPP often and happily takes care of here.

Fondue for five

Shortly after I arrived at the home of Jean-Pascal and his charming wife, Pascale, my attention was drawn to two large aluminum towers bearing the Stenheim logo, even without them producing any music. While I was lurking around the sculptures in a trance, two more music enthusiasts entered the room to complete our group: Melanie Groetsch from the Clearaudio service team, and Yves Coppey, the architect behind ▶





this audiophile's dream of a former barn. JPP had invited the two experts should further details need to be clarified. That meant the former barn was filled with people who had a real passion for music and engineering. As you might imagine, I was all hyped up and ready for the performance by this point. Pascale and Jean-Pascal's cat, on the other hand, wasn't interested in the slightest. She had found a nice, comfy spot in an empty fruit bowl sitting on the sideboard and was squinting over at us half asleep. The first dozen tracks belted through the huge Stenheim towers and filled the room with sound when another sense other than our hearing began to be stimulated: Over in the kitchen, a cheese fondue was gently starting to take shape, though luckily this had not (yet) pulled me out of "listening mode," a state I was able to enjoy stretched out on a large green sofa

slap bang in the middle of the sweet spot. When, a good one and a half to two hours later, it came bubbling out of the kitchen and joined the properly decanted wine at the table to invitingly call us over with their delightful aromas, we all took a short (okay, more of a medium-length) break from the music. Had anyone even noticed that it had now grown dark?

Sense and sensibility

First my ears, then my taste buds were in for a treat. The initial few tracks had just played on the system installed here, deeply impressing me. Now delicacies of both the food and beverage variety were delighting my senses. The wine choice proved the perfect match for the cheese fondue, which, I have now discovered, is typically served in the canton of Valais with a ▶



The pivot and tangential tonearm comparison was particularly easy with two identical Da Vinci V2 systems...

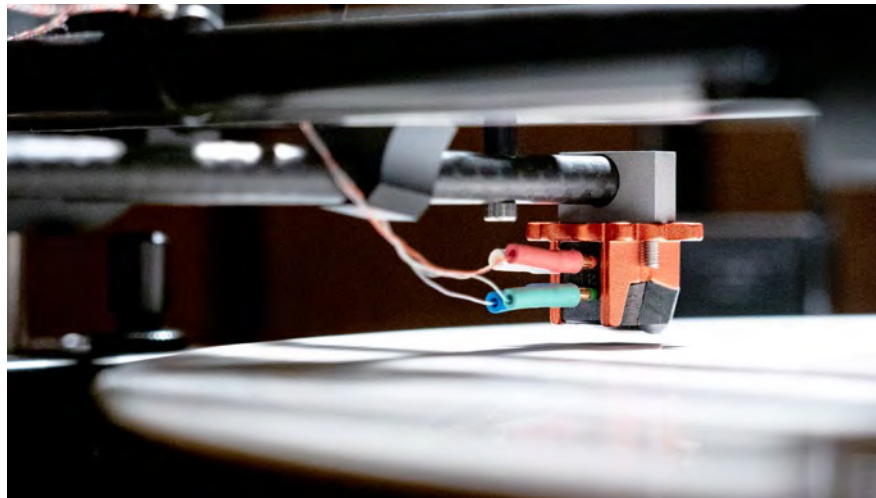
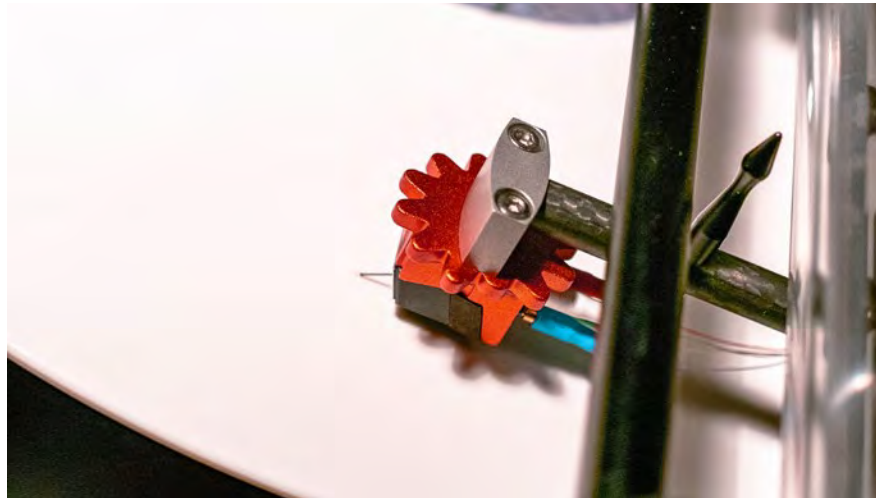
special tomato sauce. Our hosts treated us to other regional delicacies as well. Are all Swiss people (and not just the inhabitants of Romandy) gourmet cooks? It sure seems so to me. At the very least, a love of food may be a good starting point for wanting to actively develop the other senses as well. One's sense of hearing, for example.

So it's high time to take a closer look at Jean-Pascal's impressive system. Since the huge silver iridescent aluminum towers are what first caught my eye and constituted the very reason why I embarked on this journey, let's be unconventional and start back to front with the huge Stenheim loudspeakers.

Nomen est omen

As already mentioned, the loudspeakers are the Reference line Ultimate model that Stenheim supplies as a standard "passive-active" design. Also as standard, the powerful four-way system with closed aluminum housing features external crossovers that also sit inside the company's trademark solid aluminum

block. The alluring "roughly burnished" surface of the aluminum housing is, however, a departure from the usual Stenheim color palette, though special-edition models and beta-test prototypes are to be expected in the boss's home. "There are versions that require less care and maintenance," JPP said with a twinkle in his eye. "In fact, that applies to all the other ones, if I'm being honest." For the Ultimate, the Stenheim boss actually prefers more of a matte anodized surface with standard color options for the motorized angle-deviating mid-range tweeter section. In the case of this custom-made design, where the housing looks "fresh off the milling machine," the colored elements are limited to two subtle sidebars on each side. They're held in place magnetically, neatly conceal the screws of the interlocked housing modules and can be easily changed. What's more, they add to the Ultimate's sophisticated appearance, and the all-round "raw" look is nothing short of seductive: I wasn't sure I'd ever seen a surface that fit in so neatly with its surrounding decor yet managed to focus everyone's attention squarely on it. Thankfully my camera captured the light and ►



...and such a proficient, high-resolution system. Conclusion: Actually both arms are necessary.

colors reflected on the burnished surfaces that came across so naturally and reminded me quite a lot of the electronic components made by Jeff Rowland. Incidentally, Jean-Pascal refrained from changing the angle of the Ultime's motorized mid-range tweeter module to suit the listening position in the living room. He had already achieved the correct angle deviation during setup; the 240-kilo loudspeakers and their "rounded spikes" were placed on highly resilient stone bases to achieve the perfect angle for the sweet spot. The resulting sound was fittingly vast and extensive yet focused with pinpoint accuracy and unrestricted in every conceivable, audible dimension. Listening tests are so much more enjoyable when everything is perfectly prepared in advance.

Team effort

The accompanying CH Precision amplifier electronics were, in terms of appearance, considerably more conservative than the spectacular "aluminum beasts."

They're also made in Switzerland and Jean-Pascal is fond of these simple yet beautiful components because of their incorruptible sound quality. Every now and then, JPP takes a look at other amplifier beauties such as the magnificent specimens from DartZeel. In the current setup, however, hefty CHP M1 amps were powering the (noticeably sensitive yet highly resilient) Stenheim Ultime. A CH Precision CHP L1 was in charge of the central management of all incoming music signals. Players included a La Rosita π (Pi) and a Mac as a music server. Some digital data was also fed in through an L's Audio DAC. This was my first encounter with this brand. Presumably it was Swiss, I thought. JPP informed me that it was actually a DAC preamp that a friend of his had built himself and, believe or not, it "sounded rather good." Jean-Pascal also had nothing but praise for the CH Precision P1 phono equalizer, which, employing a special technical adaptation feature, imparted a real sense of analog joy. Incidentally, the phono stage had only been enjoying center stage "since precisely yesterday." Why was that? ►





Black gold

Precisely one day prior to my arrival, a Clearaudio Innovation turntable had arrived. It was equipped with both the TT-3 tangential tonearm and the Universal 12" radial tonearm. A Clearaudio DaVinci V2 had been mounted in each tonearm. I was already very familiar with this setup: We use a very similar configuration in the FIDELITY listening room as an analog benchmark and are quite happy with it. Melanie, the Clearaudio service team rep, was also very happy. She does a lot of traveling around Switzerland and had wondered how good the sizable Clearaudio turntable would perform in the semi-private Stenheim setting. The answer to her question was clear to see both in the faces of the guests and in the laid-back manner the analog “playlist” (i.e., the pile of vinyls waiting to be played) kept growing. During each break, each of us managed to find at least one more record on the shelf

that “simply had to be heard.” And that’s exactly how it should be when everything is working perfectly.

However, sometime late into the night, we found it was high time to stop pulling out more black vinyls, drinking more black espressos, and gazing at the still mesmerizing mountains that, well, weren’t really all that black under the full moon. We decided to wait until tomorrow to continue our thrilling radial tonearm and tangential tonearm comparison, which had already been going on for hours. And now I’m utterly amazed to see that I haven’t yet made a single comment about the actual loudspeakers. The Reference Ultime loudspeakers had been transporting the music so effortlessly that this couldn’t have constituted anything else but a perfect example of analog playback at its best. Adding a bit of variety to the mix now and then, all the subtle nuances achieved with the turntable adjustments, which Melanie had up her sleeve as part of what can only be described as ►

As part of a little detour to one of the production plants (see also page 062), Stenheim boss Jean-Pascal Panchard demonstrated his ultimate understanding of quality en détail.





Arty splashes of color between external crossover and vinyl cabinet.

“enhanced Clearaudio premium service,” were clearly and obviously attributable to the source. Every quarter turn here and every tenth of a gram there were immediately discernible. The loudspeakers kept their noses out of the analog service without adding anything of their own.

As a matter of fact, a hi-fi system of this caliber makes it a real walk in the park for determining the right direction to go to arrange devices and all their features. The Ultime demonstrated both how well the newly integrated turntable fit in with the overall system and how well all the components complemented each other in this room. Or, stated differently: The system as a whole was a great match for the room.

Woofer instead of wine?

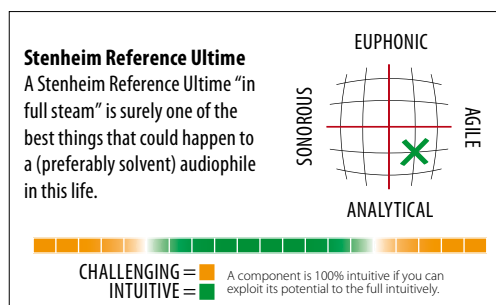
The next morning, a slightly smaller group of us continued our special summit meeting. Jean-Pascal

started the new day’s listening session by summarizing the previous evening’s experience: “Over Stenheim loudspeakers, music should sound live and natural and have realistic, virtually unrestricted dynamics so the very essence of live music can be effortlessly captured.” And this was exactly the type of impressive performance the Reference Ultime delivered the second day as well. In no way did mediocre recordings sound limp or listless. Instead, they blossomed to their own maximum splendor and proved thoroughly enjoyable despite the easily detectable weaknesses and without pretending to be something they weren’t. Outstanding productions with their seamless, merciless and compression-free dynamics left us utterly spellbound. A feast for mind, body and soul.

Upon closer inspection of certain details—for instance, Jean-Pascal’s charming rustic hi-fi rack—it was clear the setup had even greater potential. A highly ambitious system is never really perfect; instead, ►

ACCOMPANYING EQUIPMENT

Turntable: Clearaudio Innovation | **Tonearms:** Clearaudio TT-3 and Universal 12" | **Cartridge:** Clearaudio DaVinci V2 | **Phono equalizer:** CH Precision P1 | **Audio streamers:** La Rosita π, Apple MacMini | **DAC:** DIY | **Preamplifier:** CH Precision L1 | **Power amplifier:** CH Precision M1 | **Loudspeakers:** Stenheim Reference Ultime | **Cables:** Charles Brandt Audio, CH Precision | **Rack:** DIY



it encourages you to make continuous enhancements. You could even, for example, literally make another "statement" about the two "most striking" products: With its out-of-this-world Statement model, Clearaudio has anchored the mother-of-all vessels in the analog harbor. For its part, Stenheim offers the Reference Statement system, which is a step up from the Reference Ultime. The Reference Statement quartet comprises two loudspeaker sculptures that resemble the Ultime towers on many levels as well as two additional subwoofer towers in XXL format. This means the Reference Statement system engages a total of 12 subwoofers that casually descend to 10 hertz and are driven by integrated power amplifiers that have more than 10,000 watts of power. Weighing in at 1.2 tons, there is a touch of sweet hi-fi insanity about it all.

But why does the boss "just" have a pair of Ultime loudspeakers at home and not a set of Statements? My initial thought was such a quartet would block the view of the mountains a bit. Besides that, the wine refrigerator in the corner wouldn't be so easily accessible. And what about the structural integrity of the barn? Jean-Pascal has, of course, already put these options to the test. But with the typical precision and sober approach of a laid-back professional from Romandy, he decided in the end to leave the current setup as is—at least for the time being. After all it's "not so bad," as he put it in English peppered with a bit of French.

And he's right: The overall resulting sound of "only" the second-largest source and loudspeaker solution was so impressive that I couldn't find a single fault anywhere. My lips are sealed though when it comes to the price tag for the pair, okay? Ultime loudspeakers are something you either dream of (but will never attain as they are from another world) or at some point actually purchase for good reason—if, for example, a sense of style, a certain level of financial independence, and, of course, an unbridled passion for music enjoyment come together.

Hard rock with lake views

On my way home, I had enough time to mull over an amusing ultraluxury dilemma: If I were an Ultime owner, would I trade in a mountaintop view and access to the wine refrigerator for an upgrade to a Statement? What a question! I was now more interested in why I was sitting in a traffic jam in Villeneuve (canton Vaud) of all places. Isn't Villeneuve a name from the Formula One racing world? Two kilometers later, still stuck in traffic but now with a superb view of Montreaux on Lake Geneva, my thoughts returned to the matter at hand. "Smoke On The Water" inevitably popped into my head. The hard-rock anthem was recorded here in 1972 and catapulted Deep Purple into rock stardom. A couple of hours earlier in Jean-Pascal's music-filled former barn, I hadn't just heard the musical and physical power of this song; I literally felt it coursing through my body. And in a split second I could still call up the energy this rather worn-out song had pumped into the room. Hats off to a seriously impressive set of loudspeakers! ■ ►

Four-way floor-standing loudspeaker, closed, with external and internal crossover | Stenheim Reference Ultime

Efficiency (2.83 V/1 m): 96 dB | **Power-handling capacity (bass/mid-range tweeter unit):** 1,400 W/250 W | **Frequency response (manufacturer's specifications):** 15 to 100,000 Hz | **Drivers:** Four 32-cm woofers (two of which are located on the rear), two 17-cm mid-ranges, and one dome tweeter (in D'Appolito configuration); one ribbon super tweeter | **Special features:** Full aluminum housing, motorized angle-deviating mid-range tweeter unit, closed chambers for each chassis, two stereo or four mono power amps per pair required for operation | **Finishes:** as standard, matte-finished aluminum; mid-range tweeter module in contrasting color; side-bars color anodized | **Loudspeaker dimensions (W/H/D):** 37/167/56 cm | **Loudspeaker weight:** about 240 kg | **Warranty period:** 10 years | **System price with passive crossover:** as off €197 250

Stenheim | Route des Gorges 6 | 1963 Vetroz | Switzerland | Phone +41 (0) 79 2200222 | www.stenheim.com

For Germany and Austria: | Tom Habke Audiovertrieb GmbH | Feldkirchenring 52 | 22926 Ahrensburg | Germany | Telephone: +49 (0) 4102 6076057 | www.tomhabke.de

OWNER AND HEAD DEVELOPER OF STENHEIM JEAN-PASCAL PANCHARD

Born in 1961, Jean-Pascal Panchard is from the canton of Valais. The always-friendly, relaxed professional who's "proud to be from the French-speaking region of Switzerland" is a trained electrical engineer. He worked for hi-fi and high-end specialist retailers

between 1985 and 1995 before joining the Swiss high-end specialist Nagra. In 2012, the then-fledgling manufacturer Stenheim, whose founders, former Goldmund engineers, had been successfully headhunted by Devialet, was looking for a new owner. As Nagra continued

to hesitate too long, Jean-Pascal quickly seized the opportunity to take the reins himself and determine Stenheim's destiny as its CEO. Since taking over in 2012, he has continuously expanded the manufacturer's portfolio with around half a dozen employees. •



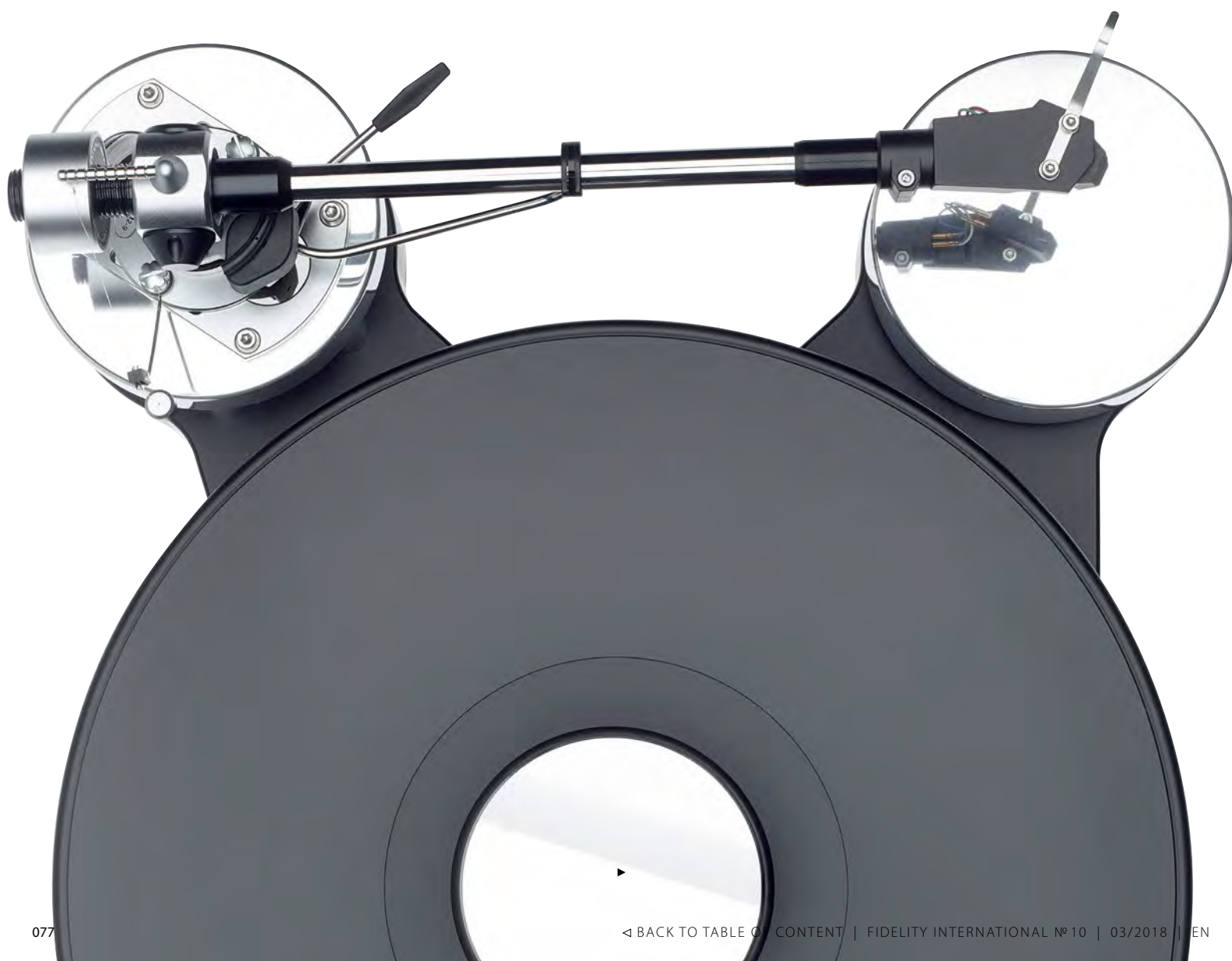


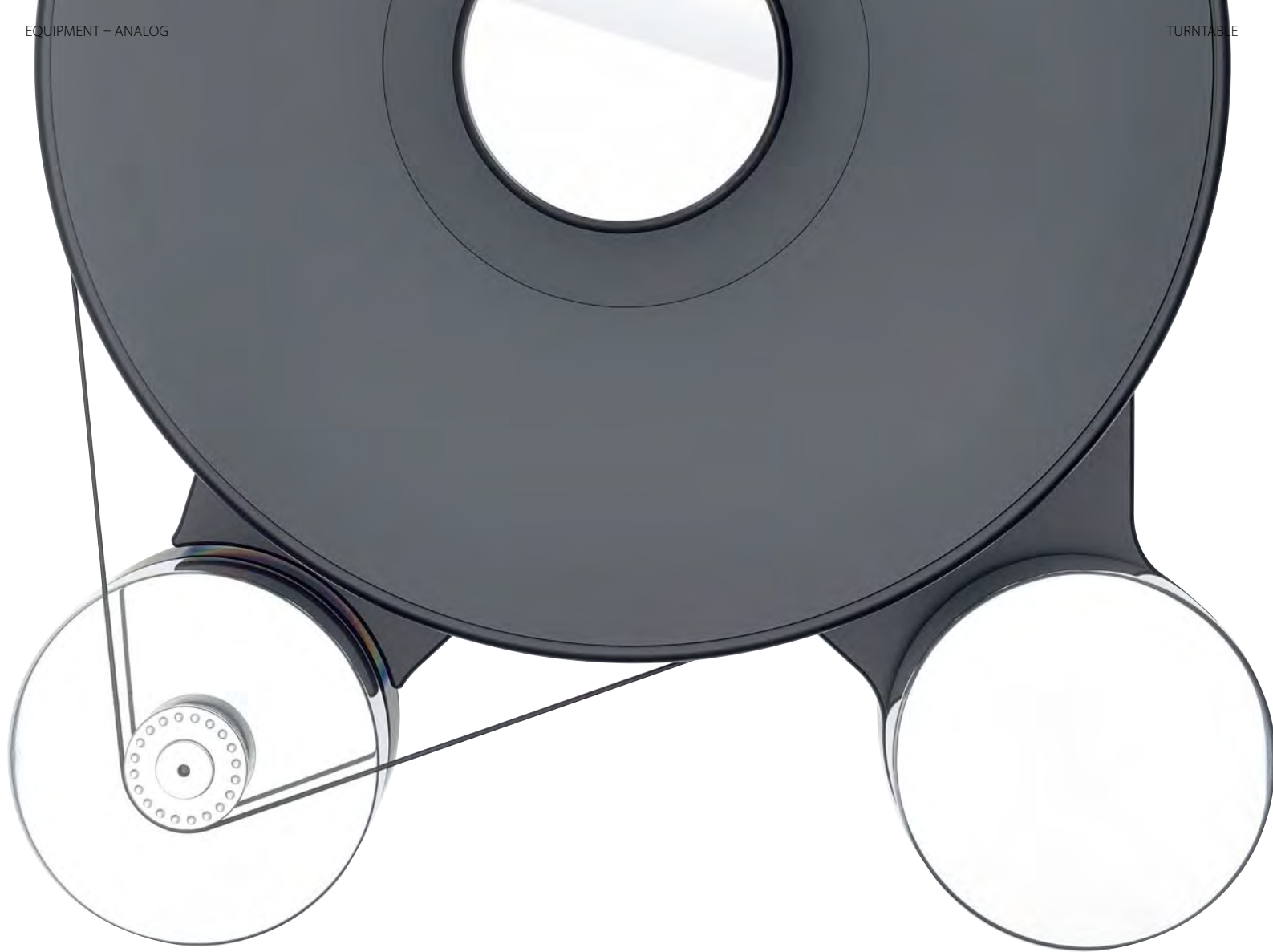
...and now for something completely different...

Transrotor Dark Star Silver Shadow

QUALITY STANDS THE TEST OF TIME

By Stefan Gawlick. Photography: Ingo Schulz





LISTENERS OF THE GERMAN RADIO STATION WDR WILL BE FAMILIAR WITH THIS SLOGAN, WHICH TRANSROTOR SEEMS TO HAVE INVENTED. THE DARK STAR SILVER SHADOW IS A RECENT ADDITION TO A FAMILY THAT SEEMS LIKE HAS BEEN AROUND FOREVER.





Exceptional position in the
Transrotor portfolio: matt black
POM as base material







Transrotor has always played a significant role, at least in my audiophile educational journey. As a schoolboy, I would press my nose flat against the window of the local hi-fi store every time I saw a music connoisseur spotlighted inside the store spinning a disk. A few years later, when I used to top up my pocket money by working in that very same store preassembling cables or sometimes even advising customers, I'd take one of my favorite vinyls I'd brought from home and pop it on a connected Transrotor whenever I found myself alone in the store and lose myself in the music for a while. I've toyed with other brands, but none of them has ever really excited me the same way and so I've had a Transrotor

firmly by my side for a good 15 years now to listen to vinyls. Admittedly, some great machines have come for short visits and looked like they could challenge the Transrotor in a few areas or even beat it. Overall, however, this stellar turntable's place has never truly been threatened, and there are several reasons why. First and foremost, it boasts a transparent, stable sound, which generally exercises impressive restraint and ensures all my vinyls sound incredibly different. Plus, it provides a neutral basis for all tonearms and pickups, which is very useful when writing articles such as this one. If, as a listener, you're not after a special or particular sound but simply want to delve into listening to your precious vinyls and hear how they're supposed to sound without any waters being

muddied, then Transrotor has to be up there at the top of your list. In addition, there's hardly an arm I haven't managed to mount on it. No matter whether it's a 9-inch or 12-inch arm and no matter the geometry, everything is easily adjustable using standard tools. And the device's open architecture allows you to mount even longer bases, for example those for 14-inch arms, or particularly short and wide bases for tangential arms. The Transrotor is open to everything and can work with anything. In my opinion, this is a great quality. And then there's the option to update the turntable over time with the latest developments. The fact that certain dimensions (platter diameter, bearing support and height, motor height and motor) are standardized ►



The Silver Shadow is delivered with an aluminium record weight.





Decoupled engine

at the company means you can, for example, switch or upgrade to a better bearing or another platter if you want to. I've always experienced an audible improvement in quality every time I've enhanced my vinyl turntable with one of Transrotor's latest developments. The TMD (Transrotor Magnetic Drive) bearing, for example, provided more precision dynamics and a stiller background, the new power supply extra stability and focus, and the modified platter a more defined fundamental tone and an increased sense of space. All improvements that, thanks to the standardized dimensions, were possible for me to experience by simply swapping one part for another without taking everything apart. Transrotors grow and develop over time, which at least puts their hefty initial

purchase price into perspective. While definitely high, it certainly no longer presents an anomaly in comparison with other brands. Twenty-five years ago, Transrotor and a handful of exotic brands represented the top end of the market in terms of price. But these days, it's clear the prices of Jochen and Dirk Räke's products haven't risen as quickly as those of their competitors: Most of the turntables developed by the company based in the western part of Cologne are more moderately priced.

The Dark Star Silver Shadow, which is the subject of this article, has been around for a few years now. It's nevertheless worth a closer look as it occupies a unique position within the company's product range due to its base material. While other products

sparkle and shine in their acrylic or polished aluminum housings, the Dark Star Silver Shadow is, to a great extent, elegantly more reserved with its matte black polyoxymethylene (POM) finish. It differs from the "normal" Dark Star in its aluminum feet and the platter, which I'll come to later. We received the basic version of the Dark Star Silver Shadow to test. It doesn't have the Dark Star Reference's double base plate so the turntable's base plate, which also houses the bearing, also acts as the base for the entire device, as is the case with most turntables. Silicone rings help support the whole construction and are embedded from below in the three aluminum pucks, which measure a whopping 10 centimeters in diameter. A cylinder running from the lowest puck up ►



Heavy additional weights under the platter improve synchronisation.





The “smaller” bearing

through the base plate ends in the top puck, which simply needs to be turned in order to adjust the height of the foot. This nicely brings us to another advantage of these turntables that I’ve not yet mentioned: Even the clumsiest of us—those who are all fingers and thumbs—can accurately adjust these turntables without having to use any special tools. This means that if you’ve just moved or simply rearranged some of your furniture, there’s no need to make an appointment with a trained specialist dealer to ensure this valuable piece of equipment can be coaxed back into producing its usual stunning sound quality.

As with most smaller Transrotor models, the Dark Star features the smaller bearing; this means it can’t be fitted with any of the parts from the large series. But this segment offers ample scope for upgrades if that’s what you would like to do.

With this series, the drive belt is not positioned on the bearing but rather conventionally on the actual platter.

The pulley on the motor is modified so it ensures the correct rpm is achieved. The tonearm base on the other hand is a typical Rake component. The tonearm base and the aluminum cylinders leading to the turntable base can be swapped for any other bases made from other materials or with other cutouts on different height cylinders depending on the tonearm. If you have fun tinkering, you could even mount a 12-inch tonearm here without any problems.

Depending on a listener’s idea of what constitutes great sound, the platter offers a broad range of options for users to choose from. In our case, it’s a not-too-thick POM platter. Five capital weights hang on the underside of the platter, ensuring proper mass and hence synchronization. The full package we received also included a reasonably priced SME M2-9 and a plain-looking Transrotor Merlo Reference system (which, incidentally, would have been worthy of its own review).

It definitely would have been a lot of fun to have tested the sound properties of the different compatible platters on this turntable: acrylic, aluminum, POM, and the POM platter shown here with weights. For now, however, I’ll just report on what I received in the package; the only other thing I can write about is a power-supply upgrade. Compared with my vastly larger Apollon, the Dark Star Silver Shadow for one thing sounds uncomplicated in the nicest sense. It doesn’t hunt for information quite so much as its big brother but in no way does it sound flat or lackluster as one might fear. Like the BBC loudspeakers I so dearly love, it presents all available information within such a solid and coherent framework you simply don’t miss a thing. You only notice the difference with large turntables in a direct comparison, although it doesn’t hold onto any unsatisfactory qualities or parade them around, unlike many of its peers. Like a BBC loudspeaker, the Dark Star Silver Shadow elegantly feeds ▶





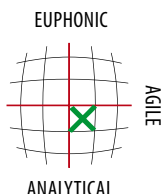


Upgrade options: different power supplies.



Transrotor Dark Star Silver Shadow

The POM chassis as a unique selling point in the Transrotor product range—laid-back confident sound in the finest tradition: Even the Dark Star Silver Shadow is as typically Transrotor as you could hope for.



© FIDELITY Magazine

ACCOMPANYING EQUIPMENT

Turntable: Transrotor Apollon (modified) | **Tonearms:** SME M2-9 and V | **Cartridges:** Koetsu, Ortofon Venice, Transrotor Merlo Reference | **Phono stage:** iFi Micro iPhono | **Preamplifier:** Professional mixing console | **Power amplifiers:** Professional output stages | **Integrated amplifier:** Lavardin IT | **Loudspeakers:** Diapason Adamantes 25th, Sky Audio Verdade, Spondor S3/SSE | **Room:** 31 square meters, acoustically modified with diffusers and absorbers to achieve short reverberation times and extensive frequency-independent diffusion

the fundamental tone and all LPs, even less well-produced ones, sound for one thing delightfully “full.”

Anyone whose audiophile collection consists mainly of recently pressed vinyls will, for the most part, remain oblivious to one of the Dark Star Silver Shadow’s key strengths, whereas music lovers who also collect and regularly listen to older vinyls will be in for this real treat: The little Transrotor pushes groove-related and other sampling noises exceptionally far into the background. Vinyl treasures, such as the Angel release of Dinu Lipatti’s very last concert, are so much easier to enjoy; the grating and static are less distracting and you are immersed in this absolute musical masterpiece much more quickly.

The plain-looking Merlo Reference is responsible for the fact that this turntable retains a clear overview when faced with more complex material and doesn’t “clam up” like so many of its peers. The old Decca release of Giacomo Puccini’s *La Bohème* with Herbert von Karajan is never a walk in the park for any turntable as it was recorded

with very few microphones and therefore individual parts can’t be emphasized. As a result, you really have to listen carefully to be able to pick out any secondary voices. It’s hardly an issue with this Transrotor combo as you can follow all the musical ideas with surprising ease. What about the fact that the large Apollon expands even further and is even more transparent? It’s something I’m prepared to forgo for the price difference!

It dawned on me that there was yet more potential concealed behind the Dark Star Silver Shadow’s matte black front as I mounted my SME V first with an Ortofon Venice, then with a Koetsu, and then in the end with the Merlo Reference that was supplied. The SME V was, in fact, not completely pushed to its limits, however the change was easily audible. Perhaps a good alternative would be an SME IV that wouldn’t break the bank?!

In closing, a word or two about the larger power supply, the Konstant Reference. Compared with the more modest Konstant Studio, something happened here that was on par with

finding the perfect focal point of a lens. All sound events seemed somewhat more clearly defined and better focused. The fundamental tone was a touch slimmer and more defined, and the bass grew subjectively a little deeper as a result—again, all points you wouldn’t have missed at all beforehand as even the basic version plays so well and so accurately. But, once you’ve experienced it, you won’t want to go back. ■ ▶

Turntable | Transrotor Dark Star Silver Shadow

Functional principle: Belt-driven motorized turntable, belt is located on the platter | **Chassis:** POM (30-mm thick) | **Turntable platter:** POM with aluminum swing weights | **Special features:** Interchangeable tonearm bases | **Basic power supply:** Transrotor Konstant Studio, various upgrade options | **Equipment with test device:** SME 9-2 tonearm, Transrotor Merlo Reference MC system | **Dimensions (W/H/D):** 46/22/34 cm | **Weight:** 30 kg | **Warranty period:** Two years (flexible arrangements) | **Starting price for turntable:** from €2,250, various package deals

Räke HiFi/Vertrieb GmbH | Irlenfelder Weg 43 | 51467 Bergisch Gladbach | Germany | Telephone: +49 (0) 2202 31046 | www.transrotor.de



THE TRANSROTOR "MODULAR DESIGN PRINCIPLE"

The word "sustainable" is heavily overused these days, called into action as soon as a product life cycle lasts longer than two years. However, in the case of Transrotor, it's absolutely appropriate as the turntables from the company based in the German town of Bergisch Gladbach tend to stay with their owners for an exceptionally long period of time. This is partly due to the in-house "modular design system." Even several years down the line, Transrotor owners can modify or

upgrade their turntables without having to take them to a workshop. There's a "small" and a "large" bearing, which define the two product lines, and customers can play around and change parts to their hearts' content within those parameters. Platters made from acrylic, POM or aluminum, thin platters, thick platters, with or without additional weights—these parts alone provide a wealth of options to choose from. The standard bearings of the large series can be changed for

the contactless driving TMD bearing. On the drive side, customers can choose from various power supplies that all actually have an influence on the turntable's performance. And if that's still not enough, you can even decide if you want your platter to be driven by one, two, or even three motors. Transrotor has created a huge playground to keep its customers happy for many years to come. ■

Stefan Gawlick



The American Corner I: Rocky Mountain Audio Fest (RMAF), October 5-7, 2018

ALWAYS WORTH THE JOURNEY

From Ingo Schulz. Photography: Ingo Schulz



Marjorie Baumert runs the Rocky Mountain Audio Festival with its own, sympathetic handwriting and gathers a growing community of music lovers on the RMAF in Denver, Colorado every year.

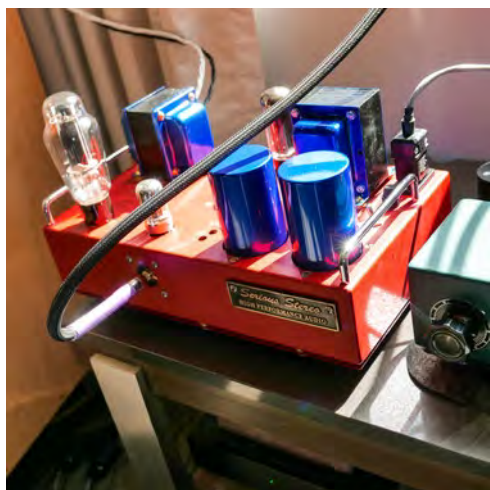




_____ 2017 was a good year for the Rocky Mountain Audio Fest (RMAF). The renovation of the event hotel, which had taken one and a half years to do – way longer than that what was originally planned – and had already caused considerable restrictions the year before, had finally been completed. Since then, the Marriott Tech Center in Denver shines in its new splendor. Everything looks fresher and more modern than before. The public facilities – bars, restaurants, breakfast and lobby areas, and even the Starbucks, inevitable for a US hotel, are all well-lit, friendly and tidy. The somewhat old-fashioned pomp and charm may

have fallen by the wayside, but overall the "new old" Marriott is much better than before. The RMAF is organized by Marjorie Baumert. She has unparalleled success in giving the hotel trade fair its very own signature. The way for the fair was paved by Marjorie's husband, Al Stiefel, who founded the RMAF in 2004. His idea was simple: to bring a community of music lovers together. After his sudden death in 2009, Marjorie, who had previously contributed to the success of the RMAF at his side, decided to continue on her own. Since then, she successfully continues her husband's idea, each year bringing together ►





In addition to fair-typical mainstream HiFi and a massive phalanx of heavy high-end equipment, there are many small and smallest manufactories that make up the unique, wonderfully colourful character of the RMAF.





an ever-growing community of music lovers to the Rocky Mountain Audio Festival in Denver, Colorado.

Although RMAF has developed into the largest consumer audio show in the US over the years, it has still got something familiar about it. In Denver, exhibitors and visitors come together in a really unique way, closer and at the same time more relaxed. The term "happening" is certainly not inappropriate in this context. With over 160 rooms and more than 400 companies, this year's RMAF has actually once again grown, cementing its leading role in North America.

Why should someone be interested in RMAF?

Well, of course you can see everything the mainstream audio scene has to offer in Denver, but obviously you could also do that elsewhere.

But what really sets it apart, is the many small and micro companies, that are completely unknown on this side of the Atlantic, but make up a considerable part of the special show atmosphere. FIDELITY will visit RMAF again this year and give you a detailed report. And if you have nothing else planned beginning of October 2018, Denver would definitely be worth the journey. ■

To get plugged in, check out our lengthy trade fair report on the 2017 RMAF here

<https://www.fidelity-magazin.de/2017/10/30/rocky-mountain-audio-fest-rmaf-2017/>

Rocky Mountain Audio Fest 2018
October 5-7, 2018 (Friday to Sunday)
Denver Marriott Tech Center
4900 Syracuse St.
Denver, CO 80237
United States



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

Active Loudspeakers genuin audio neo

THE LATEST FROM FIDELITY LEAKS: GENUIN AUDIO'S NEO LOUDSPEAKERS

By Georg-Cölestin Jatta.





Our special undercover agents were able to snatch an exclusive preview in one of the most secure laboratories in Germany. Despite tough security measures that make Fort Knox seem like a backyard gazebo, our agents were able to pilfer enough information to write up a report for this magazine. Here's a sneak look at a loudspeaker that sounds so good it's likely to leave the entire industry's head spinning.

genuin audio presented its loudspeaker neo at the HIGH END trade fair in Munich. The fully active, digitally controlled loudspeaker takes a no-compromise approach to technical implementation and sets the benchmark for dynamics, transparency, and natural playback.

At the heart of the fully active three-way speaker is a 32-bit digital controller. This not only takes care of the frequency distribution among woofer, midrange, and tweeter; but, thanks to sufficient computing power, the entire system is perfectly in tune with its time coherence and frequency response. In addition to IIR

filtering, performance-data-based linear-phase FIR filtering is used, which the neo's renowned developer team has been successively optimizing since the '80s.

Every single chassis is thoroughly tested; and on the basis of these individual test results, tailored programming is carried out for perfect signal processing.

In this way, the temporal behavior of the overall system can be designed in such a way that the propagation speed of all frequency components in the music signal remains constant. This "time-coherence" is an essential feature to achieve genuin audio's central goal of a convincingly authentic music reproduction.

In the neo's case, the temporal coherence necessary to produce a spatially appealing impression for the listener is guaranteed by a coaxial built-in two-way system. Thanks to its design, the neo reflects a harmonious, organic and at the same time high-definition sound that shines with precise spatial awareness. The frontally positioned coaxial loudspeaker on the neo ►



is supplemented by a laterally mounted woofer that operates below 180 hertz and reaches very deep down into the frequency cellar. This 30-centimeter bass chassis with an exceptionally wide hub and extra-large voice coil furnishes the neo's physically powerful bass and creates the basis for an uncompromising "full-range" musical experience. Simultaneously, the coaxial is freed from the challenging task of woofer transmission. Relieved of the demanding job of bass processing, the coaxial speaker can focus on its core competency: the authentic, homogeneous reproduction of the recording's spatial details.

The genuin audio engineers deliberately chose chassis from the professional PA sector. The selected drivers combine high efficiency with maximum thermal and electrical load capacity. The woofer, for example, can easily handle up to 1200 watts at a sensitivity of 96 decibels without any noticeable distortion. This gives the neo a stable bass that's further perfected through

control using DSP. By way of a "Look Ahead" analysis, the DSP control ensures the chassis and power amps, despite all their stability, can't be overloaded even when the volume level is aggressively abused. If necessary, it corrects in real time the amplifiers' output power with respect to any possible distortions. Here's where things also start to get interesting for those who like power because the neo (according to the laboratory manager) can even be pushed to exorbitantly high volumes to fill any room!

To ensure the drivers used receive enough power at all times, four class-D power amplifiers per loudspeaker generate a total output of a stable 1,000 watts per channel. In bridged mode, two channels of the class D amplifier module solely feed the woofer, while the tweeter and midrange unit are driven separately by their respective channels.

This combination of high driver efficiency paired with exceptional amplifier performance and optimized ►



control of all working components of the system establishes the basis for an extreme dynamic similar to a live concert as well as the accompanying authenticity of the playback through these extraordinary loudspeakers.

Essentially, the genuin neo is absolutely neutral in its frequency response when located in an optimal listening environment. Since such an ideal is very rare for most ordinary living situations, the loudspeaker's control software offers complex solutions for individual spatial correction. This makes it possible to realize a perfect listening experience even in rooms with less than optimal acoustics.

The neo comes with three presets (neutral, wall position, and hi-fi), which can be selected on the rear touch panel. For further adaptation to individual room conditions, genuin audio offers an on-site service where a trained acoustic specialist optimizes the speakers to the respective listening situation.

Thanks to digital and analog inputs, the neo can be integrated in a variety of scenarios. To process the analog signals, high-quality 24-bit AD converters forcibly

digitize the signals and feed them to the DSP. This means both high-output sources on a studio level and conventional hi-fi equipment can be connected.

The neo especially likes to be combined with a source device like the company's own Tars music server: The data consistently remains digital level and won't be directly converted until allocated to the appropriate power amplifier. To maximize the potential dynamic range, the DAC section is as perfectly adapted to the power amplifier as technically possible.

Preventing the driver's tremendous movement from tearing apart the neo calls for a stable frame to protect the loudspeakers' components: The neo's cabinet comprises the proven acoustic material MDF and features an internal tongue-and-groove construction. No matter which strokes the woofer is able to perform, the neo remains solid as a rock and mercilessly fires the amps' energy toward the listener with no losses through resonating housing surfaces. To avoid edge dispersions, the spatial environment of the coaxial is optimized through 3-D edge geometry. In this way, the sound dissolves perfectly from the speakers ▶





and it should no longer be possible to acoustically identify the neo.

With its development of the neo, genuin audio continues to hold its head high on the path to achieving absolute sound perfection and a premium-quality integrative musical experience. Although the loudspeaker impresses with its appearance—the internal technology is what makes it a technically and acoustically superior system.

The neo's well-coordinated system of heavy-duty chassis and rigid cabinet housing combined with the perfect control of drivers and spatial conditions means genuin audio has brought music playback to a level that traditional methods of speaker construction can

no longer accomplish. The neo takes you further along the path to aural fulfillment. True to genuin audio's motto: One step ahead! ■

Active Loudspeakers | genuin audio: The neo

Construction principle: three way active speaker | **DSP:** 32-bit, linear-phase FIR-filter design | **Amplifier:** four-channel class-D module | **Power:** maximum of 1,000 watts | **Operation control:** touch display | **Input analog:** 1 x XLR balanced | **Input digital:** 1 x XLR AES/EBU | **Presets:** Neutral, wall, hi-fi | **Equipment:** coaxial speakers (20 cm), long-range woofers (30 cm) | **Crossover frequencies:** 180 Hz/2000 Hz + 20 Hz high pass | **Cabinet:** MDF (19–57 mm) veneer or high-gloss lacquer surface, black or white (special colors on request) | **Dimensions (H/W/D):** 112/26/49 cm | **Weight:** 47 kg

genuin audio | Byhlener Strasse 1 | 03044 Cottbus | Germany | Phone +49 (0)355 383 778 08 | www.genuin-audio.de

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STATEMENT

MUSIC SERVER

MODAL FUNK

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. The covered cover: Is it a witty reference, respectful homage or parody? Or is there a deeper meaning behind it?

Many great musicians have passed on worthwhile aphorisms. For instance, Beethoven gave us this: “Music is a higher revelation than all wisdom and philosophy.” And Mahler pronounced: “Tradition is not the worship of ashes, but the preservation of fire.” And Ravel: “The greatest power in the world is pianissimo.” The great jazz trumpeter Miles Davis, on the other hand, has given us quotes more like “You’re a motherf...!” The phrase, used all too frequently and not exactly worthy of being handed down, was once uttered by Miles Davis in 1981 while speaking to percussionist Mino Cinelu after hearing him play for the first time at Mikell’s club in New York. In this context, the phrase meant something like this: “Hey, you play so well that I’ve got to have you in my band, so make sure you get your a... over here!”

And so he did. Cinelu was one of a handful of musicians to join Miles for jam sessions at his home in the summer of 1981. Saxophonist Bill Evans was there, too, and later said: “We never actually played through the pieces. We barbecued in Miles’s yard and never really rehearsed; then he suddenly said: ‘Okay, let’s drive to the concert.’ We were in shock and said: ‘There’s no way this is going to work.’”

But Miles obviously knew what he was doing. The three evenings the group played at the Boston club Kix turned into Miles’s stage comeback after almost six years. His last appearance stretched back to September 1975 and there was some doubt the great Miles Davis, plagued by illness and drugs, would ever make it back on the scene. His comeback album, *The Man With The Horn*, was already finished but not yet released when he finally took to the stage again in Boston. Many at the Boston club were in disbelief. And it was a small miracle for Miles himself; he had made it through some difficult years. “Man, those people were bawling when they saw me and I started to play,” he said about his first evening at the Kix. “It was exactly what I needed at that moment to keep going.” The people at his record label probably wept with joy, too. After waiting for their big star for so long, they wanted to capture every note before Miles could disappear again. The tape recorders were running on that first night, and one week later in New York, and again in Japan that fall. The recordings were then compiled on the album *We Want Miles*—resounding evidence that the man was back on the concert scene. His repertoire was small, however: It was a new beginning and drummer ►



MODAL FUNK

Part II

Al Foster was the only one left from Miles's 70s band. The new ensemble was a band without a major keyboard section. The funky live sound had a lot of air, and Marcus Miller played electric bass. Yet the style of "Back Seat Betty," "Fast Track" (and "Aida"), and "Kix" (even a little reminiscent of swing) actually seems to recall the sound of 1975.

A little more unusual are "Jean-Pierre," with its nursery-rhyme melody, and a surprising 20-minute long, very laid-back Gershwin ballad—where did he suddenly dig that one up? Davis offers extensive solos, both open and muted. The album's second most important soloist is Mike Stern, who plays a quite confident fusion rock guitar. Incidentally, one of Miles's audience members back in 1981 was the then-16-year-old Don Cheadle. He's the man who transformed this moment in Miles's career into the highlights of his 2015 film *Miles Ahead*.

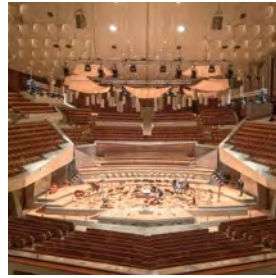
We Want Miles may not be a masterpiece, but the album served as a signal in bright yellow. The man who became a pop star with jazz and kicked off the wave of electric fusion was back—with a cool, funky vibe. This makes *We Want Miles* a symbol for fans of funk—and, of course, for Rock Candy Funk Party, the self-proclaimed super group from California. The group began as a funk-jam project making occasional appearances at The Baked Potato jazz club in Hollywood. In 2009, they formed a band; in

2013, their debut album, *We Want Groove*, was released. Their version of the Miles cover tells us: Groove is loud, and groove is sexy. Drummer Tal Bergman and guitarist Ron DeJesus founded the band. They're experienced studio professionals who can produce practically any sound—from jazz, blues, rock, and funk to soul and hip-hop. The best known member is Joe Bonamassa, the guitar hero of the new blues rock. With the exception of the cover version of a Jimmy Smith piece ("Root Down"), all of the numbers on the album come from the entire band. It's easy to imagine how the pieces came about, how each player contributed his theme, rhythm, and style and superimposed it, each on top of the other. The themes are essentially just riffs with modal improvisation, producing a consistent tonality for longer segments. Almost all the solo improvisations are performed by the two guitarists, making it easy to compare them, along with keyboardist Renato Neto, who also plays delectable vintage instruments (Fender Rhodes, Hohner Clavinet). The album is less suited for singing along, however. The music is purely instrumental, brutally masterful, consistently funk-rocking, and impeccably played. Incidentally, the latter is something Miles Davis never did. ■

Miles Davis: *We Want Miles* (Columbia 469 402 2)

Rock Candy Funk Party: *We Want Groove* (Provogue PRD 7411 6)

Photo: Stefan Gawlick



Professional musician Stefan Gawlick travels the world and knows almost every major concert hall around the globe. In this series, he reports on the acoustics and other characteristics of famous venues—both in the auditorium and on stage.

Great Concerto Hall

BERLIN PHILHARMONIE

_____The time has finally come to write about this hall. You see, I wanted to put it off for a while and savor it as one of the highlights of this musician's year. I didn't want to blow through all of the exceptional halls in the first set of articles for this series. But now I've got to get down to it.

I have a very deep connection to this hall. Because about 60 percent of my parents' LPs were from the Berlin Philharmonic—at that time exclusively on the Deutsche Grammophon label—I was regularly listening in on the hall from an early age without even knowing it.

Eventually, I ended up going to university in Berlin and eavesdropped on an average of two concerts a week during my first two years there. At those concerts, I really absorbed the sound of the hall built between 1960 and 1963, turning it into my personal yardstick, my acoustic compass needle that I would later use to gauge every other concert hall I visited.

A concert in the Berlin Philharmonie is one thing, and the hall would be extraordinary enough on the basis of its sound alone. But

what's fascinating is how everything in this nearly 70-year-old hall is also perfect behind the stage as well.

The Philharmonie is easy to reach, but if work has made your head spin, the zoo is just a stone's throw away. The hall offers plenty of parking, and it doesn't matter what type of vehicle you use to transport your instrument: From compact car to massive truck and trailer, the drop-off zone has enough space for everything. Musicians can unload directly into the elevator, which takes them right to the backstage area; no tight curves or steps stand in their way. Also behind the stage are the dressing rooms, which, by the way, even have windows. It's just a few steps from there to the podium. For every musician carrying an instrument worth as much as a nice single-family home, it's incomprehensible that even new concert halls such as the Elb Philharmonic and Konzerthaus Dortmund make it difficult to reach the stage by forcing musicians to navigate multiple stairways.

The hall's restaurant is located right behind the stage and offers musicians and members of the audience a chance to mingle ►



Photo: Stefan Gawlick

after concerts. Thankfully, life is a little more laid back in Berlin, and producers and consumers can come into contact with one another—an essential aspect of building ties and promoting valuable interaction. Pardon me for getting off track again, but in Hamburg, members of the audience who want to visit backstage have to register far in advance. At one of my last concerts there, this made it impossible for an extremely wealthy, generous patron to meet with the artist. Pretty foolish.

The hall is and will remain second to none in my opinion. The stage is large and adjustable in multiple ways, the lighting is cool, bright, and free of shadows. The width and practical gradation of the seating provides for optimal viewing, and the stage acoustics are simply magnificent. From your seat, you can gather each and every bit of necessary information: To begin with, you hear yourself completely free of distortion. It may sound obvious, but it's actually not so easy to find anymore. Because a decent share of the hall reverberation travels back to the stage, your own volume is easy to gauge. You also

hear all the other instrument groups in the orchestra, which enables everyone to play as a cohesive unit.

The hall realizes a fantastic balance between precision and charm: Small inaccuracies may be audible, but cloaked in a lovely reverb to soften their edge, they become much less bothersome. While you do have the slight sense of an arena atmosphere with the audience seated around the orchestra, it just enhances the excitement of sitting on this stage. That's especially true if you're a drummer in the last row and the audience in the best-selling choir seats just a meter behind you can read the music along with you.

This hall has set benchmarks since the 60s and has never had any serious competition to this day. ■

<https://www.berliner-philharmoniker.de/philharmonie/>

Music tips—Recordings with characteristic concert-hall sound | Dmitri Shostakovich: Symphony No. 8, Berlin Philharmonic, Semyon Bychkov, Philips | **Maurice Ravel:** L'Enfant et les Sortilèges Berlin Philharmonic, Simon Rattle, Warner | **Anton Bruckner:** Symphony No. 9, Berlin Philharmonic, Herbert von Karajan, DGG



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.

1966

THE FAR EAST SUITE

—Jazz assumed the role of peace dove during the Cold War. For many years, the US State Department sent American jazz musicians to perform abroad in Africa, Asia, and Central and South America. In 1963, the Duke Ellington Orchestra also embarked on a similar goodwill tour, traveling through the Near and Middle East and performing in Syria, Jordan, Afghanistan, India, Sri Lanka (then known as Ceylon), Bangladesh (then known as East Pakistan), Pakistan, Iran, Iraq, and Lebanon. The tour ended prematurely after the assassination of John F. Kennedy. The orchestra returned from this unusual journey with a series of musical souvenirs that Ellington consolidated into a suite that he recorded with his orchestra at the end of 1966. The final piece in the series was inspired by a brief tour of Japan in the summer of 1964—and thus the title of the entire collection: *Far East Suite*.

The *Far East Suite* emerged at the historical intersection of several different traditions. There was Ellington's 15-piece big band with its history reaching to the 1920s in what was essentially an old-fashioned format for 1966. And there was the new influence of free jazz and rock and various ethnic sounds that the band had picked up during its tour in Asia. Duke Ellington had the ear and the courage to incorporate all

of these elements into the *Far East Suite*, which is neither world music nor avant-garde nor typical big band, but instead has a little bit of everything. Impressionist harmony mixed with exotic scale segments, blues intermingled with the Orient. Ellington's congenial colleague Billy Strayhorn, who was able to participate in the orchestra tour for once, contributed his own Asia impressions. It was the pair's last great collaboration and Strayhorn's legacy: He died five months after the recording.

Each of the nine pieces on the *Far East Suite* has its own history. Most of the starting points of the compositions are familiar: the singing of a bird in Delhi, young people dancing in Amman, the impressive Mount Harissa above Beirut, the Taj Mahal near Agra. "Isfahan," one of the most beautiful ballads in the history of jazz, had already been completed before the tour and was given its Iranian name after the tour had ended. Jimmy Hamilton's clarinet brings the Indian bird to life, Johnny Hodges' alto saxophone blows the world music blues, Harry Carney's baritone sax evokes the love of the Grand Mogul, Paul Gonsalves's tenor whistles across modernist bluffs, and Duke Ellington's piano simply plays into eternity. An album like no other. ■

Hans-Jürgen Schaal



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

Accuphase

DREAMS, THEORIES, TUNING— ALEX WORKS

By Cai Brockmann.





ACCUPHASE IS
KNOWN FOR
ITS EXQUI-
SITE EQUIP-
MENT RANGE
AND DISTINC-
TIVE LOOK.

▶

BUT THERE IS SO MUCH MORE
BEHIND ACCUPHASE: A LIFE
CONCEPT FOR AUDIOPHILES, AN
ABSOLUTE HIGH-END IDEA. THE
FINE AUDIO COMPONENTS EMBODY
ONLY THE VISIBLE PART OF A
DREAM THAT HAS COME TRUE.



Jiro and Nakaichi Kasuga, the founders of Accuphase Laboratory, Inc.
(until 1982: Kenosonic Laboratory, Inc.)





The company's founding members



When brothers Nakaichi and Jiro Kasuga launched their own manufactory in 1972, the time was ripe for something entirely new and totally logical from an audiophile point of view. The Kasuga brothers had left Trio-Kenwood (a company founded by them 25 years earlier) in order to establish Kensonic Laboratories in Tokyo. Together with selected experts, they meticulously implemented their plan to develop and bring to market audio products under the brand name Accuphase, which would qualify as the world's finest in every respect. The idea

behind the coined name Accuphase—a combination of accurate and phase—came exactly at the right time: The Kasuga brothers recognized that, in the rising hi-fi boom of the 1970s, a brand that could focus very precisely on quality, reliability and sound would be a success. Accuphase very deliberately went up against mass-produced products and their quality compromises—with a premium-class manufactory mindset.

In 1973, just one year after its founding, the company moved for the first and last time: from Tokyo to Yokohama,

from Jiro Kasuga's own space that had grown too small into a new commercial building. The company is still located there. Their only name modification came in 1982: On the occasion of the tenth anniversary of the company, Kensonic Laboratory became Accuphase Laboratory, Inc. It was a logical merger of the brand and manufacturing names.

Unlike most newly established companies, Jiro and Nakaichi Kasuga didn't set up their company with only a technically sound basis, but with a financially sound basis as well. In ►



addition, they formulated a ten-point statement, their Management and Corporate Policy, outlining how the project would work overall and point the way to the future. Accuphase was thus the first high-end brand, not only in Japan but probably in the world, to define its objectives and principles with a strict and transparent requirements specification. This self-regulatory codex for all activities related to company management, product development and musical orientation has remained valid and unchanged to this day. It calls for much more than the pursuit of technical excellence and superior engineering skill; rather, it gives all of the employees,

including those of future generations, honorable guidelines and objectives. In practice, they can be followed throughout all of the development stages, in all details through to the finished product—and even beyond. Even after a component is produced by specialized experts, the need for professional expertise continues; this is met by selected and long-time distributors in more than 60 countries worldwide, who then support specially trained Accuphase specialist dealers (for instance, Accuphase has had a trusting relationship with the distributor for Germany, P.I.A. Hi-Fi Vertriebs GmbH, for more than 40 years). The highest customer

satisfaction and comprehensive service are also part of the company's long-term, declared goals.

In this connection, Accuphase has declined to expand its portfolio to include speakers and turntables. The staff in Yokohama is completely and totally focused on the core competencies of the company and, in doing so, preserve and perfect “classic” electronic components, especially pre and power amplifiers, full amplifiers and established players such as D/A converters and CD players—of which most have been optimized for musical SACD (super audio CD) format. ►



Accuphase headquarters in
Aoba-Ku, Yokohama, Japan





Hideharo Ito (acting President), Jim S. Saito (former President), Masaomi Suzuki (Executive Vice President)

In 1973, the team around Nakaichi and Jiro Kasuga presented the astonished public with the first components to carry the new, internationally effective brand name Accuphase: The VHF tuner T-100, the pre amp C-200 and the stereo power amplifier P-300 were enthusiastically celebrated for having a previously unheard of quality—and right away, Accuphase was able to accept its first accolades. The P-300 power amp, for instance, won the renowned Japan Compo Grand Prix Award in the same year. Since then, the company has introduced an average of six new components a year that, with distinct regularity, are honored by the trade press.

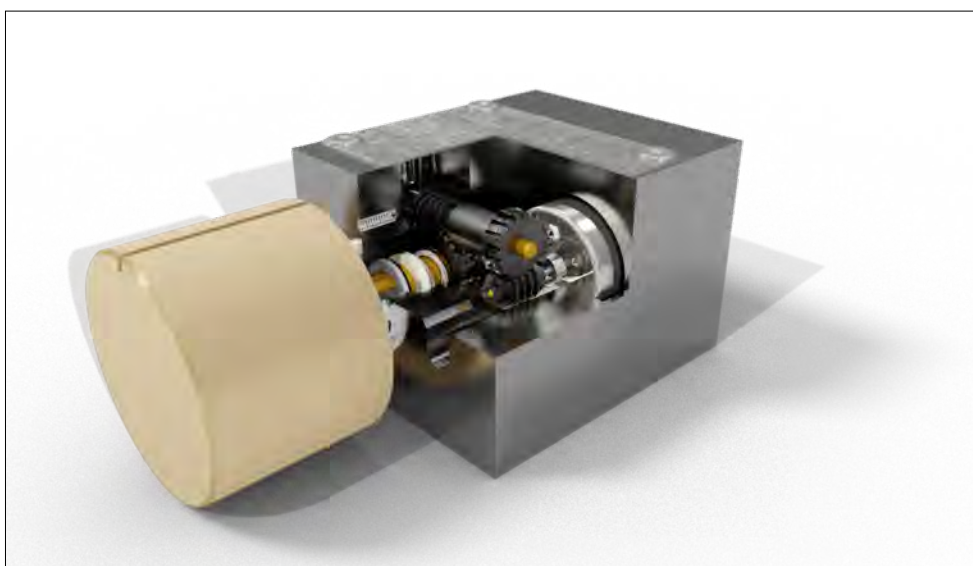
Every device from Accuphase carries its own service card on which key information from the manufacturing process is documented. Even after decades, this facilitates first-rate service if it is ever needed. Because the fundamental concept of highest quality permeates every process step and is thoroughly checked, from development to careful assembly through to final inspection, which incidentally includes a test “with all human senses”—a stand-out feature

in the usually very technically-oriented high-end audio scene. But at Accuphase, man and his love for music is the focal point.

“As long as there are people, there will be music,” says Hideharo Ito, acting Accuphase president. And his company can deliver “the ultimate sound quality not least because we are audiophiles ourselves.” The developers thus know the exact wishes and mindset of the discerning clients and can design precisely what they would like to have at home themselves. Vice president Masaomi Suzuki adds: “High-end audio is a powerful tool that lets users listen to music exactly the way they feel it in the depths of their hearts. And we want to offer people the right tools for their own personal enjoyment.” So owners are given not only an absolutely top-class music machine with outstanding technical data, but precisely this “tool that will let them fully immerse themselves in music.” Consequently, following completion of the basic technical construction, the typical development process also includes elaborate listening sessions in which the desired flawless sound is

finely tuned down to the slightest detail. This fine tuning alone can take just as much time as the technical development beforehand. And only when this critical hurdle has been passed does the completed device receive its internal house reference status. It remains in the company and is subsequently used by the Accuphase team as a standard for all further specimen of the series.

According to the company’s motto, “Enrich life through technology”, every activity at Accuphase is based on the ideal of preserving the cultural asset of music as best possible. The goal is simply to provide audiophile music lovers with the ideal tool, one which is as flawless as possible in terms of electronics and mechanics, optics, surface touch and practical performance. In doing so, the company does not orient itself on the (certainly respectable) level of international competitors, but is proud of having simply everything—from development and manufacturing through to the final inspection and all-round service—take place in-house according to standards that are substantially higher than usual. As a result, ►



The Accuphase Analog Vari-gain Amplifier (AAVA) works with a classic control knob with more than 65,000 levels, thereby offering a fully analog sensation across the entire standard width. The SACD and CD drives are produced in-house with a tolerance of less than one micrometer (μ : one-thousandth of a millimeter).





The goal is simply to provide audiophile music lovers with the ideal tool, one which is as flawless as possible in terms of electronics and mechanics, optics, surface touch and practical performance.





Hideharo Ito, General-director von Accuphase Laboratory, Inc. | Hideharo Ito, President of Accuphase Laboratory, Inc.

technical innovations and brilliant solutions are regularly developed to series maturity in Yokohama, according to the Accuphase standard.

This includes, for instance, a special end phase switch (current feedback amplification), which enables extremely stable operation of power amps into the highest frequencies. Or a switching technology called MDS+, which uses several parallel D/A converters to achieve the best possible, extremely low interference playback of digital sound carriers, especially with the Super-AudioCD held in such high esteem by Accuphase.

An especially striking example of innovative developments is a special volume control with pre and full amplifiers with the abbreviation AAVA. The Accuphase Analog Vari-gain Amplifier stands for the extremely low-noise and precise fine-tuning of the desired output level that took immense manufacturing costs

to realize. AAVA works with a classic control knob with more than 65,000 levels, thereby offering a fully analog sensation across the entire standard width, with smooth turning and solid left and right stop for the control knob. In addition, a display shows the current volume in numbers—a small, highly precise, complete work of art by engineers, which just so happens to also make it much easier to reproduce a certain setting.

Originally, AAVA was developed for the company's top of the line preamplifier; in the meantime, it is included in all of the Accuphase amplifiers. The technically much better and clearly audible benefit of this costly solution was too great for those in Yokohama to have wanted to go without it any longer. And AAVA is not only presenting the pure form of "Enrich life through technology" for the leading German high-end magazine FIDELITY. Simply

experiencing how the control knob is touched, turned and operated is a great joy for any user. Upon closer inspection, the volume control we take to be so simple doesn't just represent an interface between man and machine that is so magnificent in every respect—it also symbolizes the aspiration of Accuphase to want to beautify the life of music lovers and hi-fi enthusiasts, in incomparable perfection.

The always "just right" size and smooth operation of the control knob point to another discipline valued by more than high-end fans: durable and resilient precision mechanics. One example of this can be discovered at the touch of a button on the digital drives. The SACD and CD drives are produced in-house with a tolerance of less than one micrometer (μ : one-thousandth of a millimeter). Accordingly, the disk drive drawer features an ultra-smooth retraction and extension, and the digital ▶



With the subtle gold tone of the front panels—which have long been recognized as stylistic elements characteristic of the brand—and the layout of knobs, switches and controls established for years, experiments are not part of the tradition.



Accuphase very deliberately went up against mass-produced products and their quality compromises – with a premium-class manufactory mindset.





player from Accuphase runs as quietly as a mouse. That in turn gives the user a consistently enjoyable and legitimate feeling of solidity and reliability. And if after some time the user feels the need to equip his or her hi-fi system with additional—or newer—Accuphase components, there is no need to worry that things will suddenly no longer go together. When it comes to design language, outer appearances are extremely reserved. The design of the devices from Yokohama is aimed at longevity, and is thus moderately contemporary, but never trendy. With the subtle gold tone of the front panels—which have long been recognized as stylistic elements characteristic of the brand—and the layout of knobs, switches and controls established for years, experiments are not part of the tradition. A current preamplifier C-2850 from 2016 looks so similar to its predecessor C-2800 from 2002 that questions about their relationship are practically a given. It is one of the reasons that Accuphase devices cut quite an attractive figure even in the market for pre-owned devices. Another reason is that the company strictly refuses to produce even one more component if it means that the product quality upon which their standards are based could suffer. The 80 member Accuphase team therefore limits itself to producing approx. 5000 devices per year—in the

proverbial Accuphase quality at appropriate prices that can by no means be low.

In return, all of the technical information is not only documented, but is also guaranteed; with display instruments reaching measuring device quality, every user can count on absolute technical reliability. Accuphase is “Made in Japan”—at its very best.

Under the headline “The Future of Audio”, Accuphase continues to avow its previous and established principles. And with regard to the pleasurable and very individual human aspects of listening to music: Although measurement devices and information have become more precise and extensive in the course of decades (from which the Accuphase portfolio has no doubt profited as well), they still do not register all the nuances of the human sense of hearing, and would not measure up to detailed human perception. According to Accuphase, even the most sensitive measurement methods are not capable of penetrating the intangible “delight in music and in the best sound.” But outstanding audio technology, as Accuphase has produced with absolute exemplary consistency for the last 45 years, serves to procure individual enjoyment for the audiophile listener—without imposing it in any way. And this is precisely what the company will

hold firm to in the future: using hearing to fine-tune its own tools for the optimal delivery of music.

In 1972, Nakaichi and Jiro Kasuga defined a new vision of high-end audio with their Accuphase project. The visible and tangible result garnered immediate attention and the highest accolades. It took just a short time for Accuphase to become synonymous with outstanding amplifier electronics—an accomplishment that could be expanded even further with digital components and wouldn’t even be stopped by the company’s own mains filter and digital room correction units. The standards were formulated and established, and were consistently enforced. It is difficult to overstate how significant it is that the principles of the Accuphase founders have not changed to this day. Or will change. And this reliability is all the more impressive as times change at an ever faster pace. ■

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Kanagawa Prefecture | 225-8508 Japan |
www.accuphase.com**

This is a reprint from “WHO IS WHO IN HIGH FIDELITY”—Vol. 2, the compendium from FIDELITY MEDIA 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 American Corner II

MUNICH 2018 HIGH END SHOW REPORT

From Danny Kaey





There I was, dreading the drive up to the M.O.C., Munich's famed 90s themed industrial complex used for events, trade shows and other such gatherings. It was a click past 9AM, which meant that I would likely set foot on the show floor by 9:45 or even 10AM. Mind you, under typical conditions, that's no more than a 10-15 min drive from Marriott's Berliner Straße hotel (also host to the offshoot HiFideluxe show taking place at the same time). The cause for this apparent time warp? Thousands upon thousands of HiFi fans descending on Munich, in balmy, 75 degrees weather May, to view the latest high-end audio wares, spectacles and hobnob with a worldwide industry seeking significance, nay, relevance in 2018. Surprisingly, the dreaded taxi drive turned out to be far less of nuisance, placing me at the entrance of the M.O.C. a scant 20-ish minutes later. Scratching my head somewhat, I recalled that just four years ago, the last time I visited the show, that very same drive took up quote a bit longer. Either taxis magically cut the estimated time of arrival by half, or, more likely, there simply was less traffic to contend with in first place.

The connection to today's real-world man

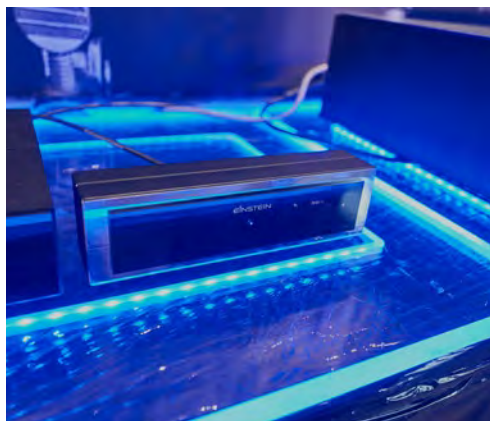
It was the latter. Now, having seen all relevant Munich show reports over the past few months, I noticed colorful musings about this thing and that thing; I read about the continued strong vinyl presence; I read about the significant advances in digital decoding, speaker design, and how apparently healthy and robust the HiFi industry appeared. Sure, the big guns all had strong presence as always: Wilson Audio made a soft splash with their just announced, latest desktop model aptly named TuneTot (a pair of which was dispatched and received at *chez K* literally the day prior to my departure for Europe); Dan D'Agostino used Munich to announce his biggest to date effort, Relentless

mono block amplifier; the team behind AURALiC introduced perhaps the most significant and technically advanced external clock upgrade to a DAC, Leo GX; Andreas Koch brought to light his highly anticipated and exquisite new reference line, the MPS-8 "Dream" series (review forthcoming); EINSTEIN showed off their stunning production model all new phono stage which at a price of EUR 2500, will surely set the world on fire, if not at least a turntable or three. From a product perspective, the world of HiFi certainly appeared healthy and well stocked. Further proof came in form of the close to thousand photograph strong camera roll, indisputably proving that the product offering fare was indeed great, perhaps even bigger, even better, even more effective than its ever been. What, however, appeared missing, perhaps even completely absent, was a real, meaningful connection to the end user. No, not the "converted" HiFi guy, nor even the decade+ club HiFi elite member; no, what was missing was today's real-world man spending his cash on HiFi bling, much as he would on fancy cars, fancy watches, fancy suits, fancy wine, fancy anything.

Reimagine HiFi

In somewhat of a stark contrast to my aforementioned previous visit four years ago, not to mention in even starker contrast to most show reports who covered Munich 2018, the show as a whole appeared far less extolling of virtues past: Munich this and Munich that, Munich the show of all shows, as is heard repeatedly throughout club Med, nay, HiFi, didn't strike me in the least as such. To cast an even wider net of discombobulation, Munich 2018 frankly appeared confused as to what it was or what it was hoping to be. Perhaps in a subconscious nod to my previous editorial efforts here at FIDELITY, I've come to view 2018, and thusly, it's grandest of dames, Munich's High End, as the year to assess the state of shows, HiFi stores and HiFi in general. Call it the state of the ►





state of the state of the union. Let's recall the story I've shared hundreds of times from years past, attending Munich up until my previous visit, 2013: HiFi is such a strong cultural bond in Europe that you'll often see parents with kids prancing around room to room, reminding me of my own youth when, as a pre-teen lad, my brother (ten years my age), would take me to Vienna's yearly HiFi spectacles. Now, clearly, the early 80s didn't have distractions to HiFi like we do today: there was no internet, there was no multimedia, there was no smartphone, no giant screen video wall, no HomePod, no Bluetooth boombox nor much of any other sort of media consumption machinery. At best, you likely had a TV and some form of stereo. Munich then, in 2018, failed at that which it was best suited and geared for: reimagine HiFi for a new type of consumer, a new type of lifestyle.

High end, low end, dead end

Thursday's press only day was filled with the usual international crowd of high end, low end and dead end aficionados. Therein lies the rub. We are too fractured, too divided, with far too many categories to all fit under one roof. There simply is no way to tell a story with a straight face when one manufacturer extolls the virtues of his aluminum and copper jeweled 250k mono block amp on one side of the floor, yet someone else entirely poetically attempts to sell you on a flea-watt, wood chassis single ended valve amplifier retailing for 35k driving royal Japanese paper cone crossoverless AM radio quality speakers that require a semester's pay at Harvard. There's just no way to make that concept gel. Further down the pike, some other bestseller rumbles with dubious duplicity that his Chinese sourced 2k tube amp with ten bulbs a channel will somehow magically out-sing a genuine engineering feat like EINSTEIN's OTL Circlotron mono block amp at 65k, built by artisans in Germany, earning a real world Western living wage. See what I mean? Even

as our esteemed, highly opinionated HiFi emissaries, otherwise known as the movers and shakers of the HiFi press, wax with apparently little to no regard for such concerns, your average baseline mainstream marketing professional worth his fancy degree or common sense would clearly tell you otherwise. You know who you are and you know I'm right.

What's the story?

To sell, you have to create a story. To sell a lot, you preferably have a story that sticks like glue. Today's consumers are no fools; market segmentation fueled by extremely targeted, cunningly clever professional marketers have done the rest. Why do you think BMW went from 3 models to well over 17 distinct vehicle models in a matter of 30 years? Yet, each one of their cars shares a common story. Each one tells that story to a prospective buyer or wraps the fresh owner inside it, day in, day out. Munich (ironic that BMW sits a mere stone's throw away from the M.O.C.) then seems anything like that professional marketer: it simply adds more fuel to the already out of control fire. One size does not fit all. A giant umbrella tucking all and everything underneath, is a passé way of monetizing otherwise profitable ideas. Munich screams of missed opportunities that are waiting to be uncovered by someone else. A prospective buyer of a 200k system cares little about some rubbish, mass produced dreck turntable, even if said deck was made by a German company, decades in business. Reversing the equation holds true as well. To each his own.

Focus!

Barilla noodles are no match for mama's home-made freshly rolled pasta. Why then are we trying to sell them side by side? Same goes for HiFi. What needs to happen is quite simple: for this industry to shine, we need to start splitting it into precisely the ▶



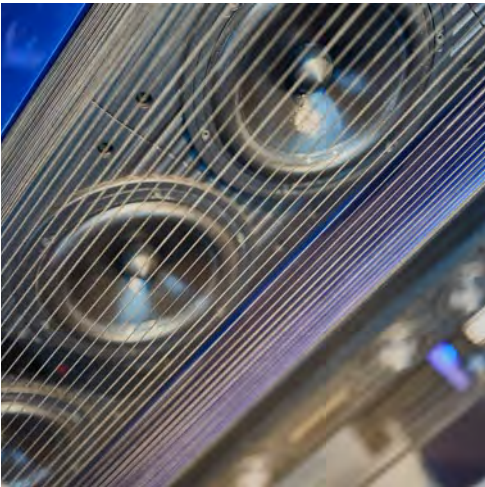


factions it has already created for better or worse. Host smaller, more exclusive, more personable venues. Elevate the experience of listening to HiFi, be it Qobuz, Roon or vinyl. Think HomePod is all you need? Great! Here's the best possible HomePod experience. No need to tack on a 10k "value add" DAC that the prospective owner would never care for, much less aspire to own. More Monets aren't sold because people buy smaller Hallmark Valentine's Day cards. Each can have their own. Build it and they will come. Over on the American side of the pond, we face the same problem. Here it's called Axpona, T.H.E. Show, New York Audio Show or any other some such hold out from a business model decades past its prime. While I love attending any of these shows for the sake of kinship with fellow "believers", I cringe at the missed opportunities each and every one of these shows bring to light. Retailers like Maier Shadi, The Audio Salon, Fabio Storelli, Alma Audio or Sunil Merchant, Sunny's (all greater Los Angeles area based) are all working feverishly on reinventing the retail wheel. The Audio Salon in particular has demonstrated that hyper targeted, laser focused marketing does in fact produce a positive effect on revenue. HiFi shows ought not be

any different. Forget the umbrella when a fedora is all that's preferred and far more desirable. Think Rodeo Drive, not Roxanne Ave.

Beer, Bratwurst, Bauernbrot

Back at the M.O.C., as press only Thursday moved to public Friday, and Friday to Saturday, the halls simply missed the aura they once had, certainly compared to what I witnessed during my very first Munich outing in 2008. Sunday? Practically a wasteland. If wait times at the espresso bar were any indication, I'd say the glass was clearly less than half full. You know the time when you keep running into the same people minutes apart at opposite ends of the show's venue. There's that time warp thing again. One manufacturer jokingly (no, he didn't) said "I have been at this show for years; today [Sunday] is the first time that I can remember that I'll be able to visit some colleagues I rarely get to see". That sentiment, expressed more than twice, seemed to indicate the hour clock moving way past bed time. Bratwurst, beer and Bauernbrot can only nourish those in attendance, no matter how good they are. ►





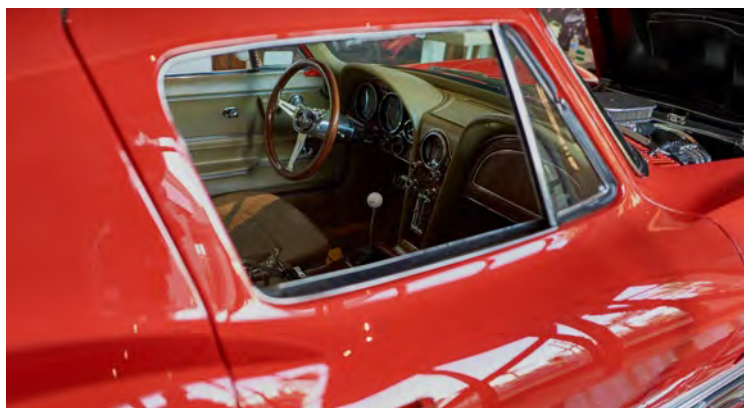
T.H.E. SHOW AT IRVINE'S MARRIOTT SPECTRUM

Showtime again

Fast forward a few weeks and I was back in action covering T.H.E. Show at Irvine's Marriott Spectrum. Quarrels, quibbles and quandaries over their ongoing survival fight vis-à-vis now defunct one hit wonder the LAAS not withstanding, Maurice Jung's T.H.E. Show, held June 1-3, came across in much the same way as Munich, though on a—thankfully—smaller scale. A scant 20-ish rooms, clad with a handful of classic automobiles, daft faux Cuban cigars and some third rate magical lotion parlor, couldn't help bring to life this seemingly last minute setup of a show. Compounded by the fact that merely a few weeks prior rumors of the shows demise were in high circulation and you had yourself a setup for the perfect storm. Mind you, T.H.E. Show's do or don't moment wasn't aided by the fact that last year this very same show was in fact a no-show just 2 weeks prior to inauguration. Clearly not the way to build a following, much less drive any

meaningful story, willing supporters or not. Next, as to make matters worse, the hotel's rooms, though recently renovated and providing an otherwise modern, chic décor, were for the most part entirely too small to host any meaningful HiFi exhibits, even less so the moment your room crossed the 3 person threshold, let alone ten or fifteen. In my book, a single room managed to elicit a vibe. Fabio Storelli's very large (only one) demo room who's partners included YG with their astounding Sonja XV Jr., D'Agostino with a quad pair of Momentum mono blocks and Technics, featuring their latest pup, the mighty (review forthcoming) Technics SL1000R in final production form all leashed together by Kubala-Sosna's positively amazing reference cable line, Realization. Affable, friendly and otherwise superbly knowledgeable and outgoing representatives in toe, Fabio's room was where I spent most of my time. Judging by the room's generally packed status, so did many others and for good reason. ►





Do not add 'lifestyle'

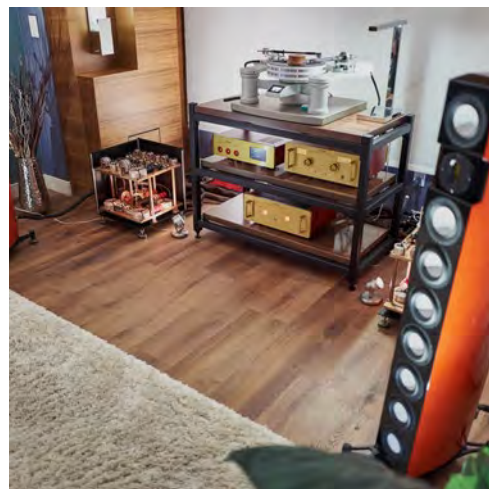
Sonically, this was the standout room, though I won't pass any over the top judgement other than to say that it was check-mate by default since nothing else really added to the count. Other than scoring a couple of good record finds, the show seemed like yet another could have been. Did anyone with any serious intent to audition gear or better yet, make a decisive purchase, attend this vaguely organized street market fare? I doubt it. Will there be another one next year? Who knows. Maurice Jung and his team seem to think

so. What this particular show, as explained by Jung himself on a podcast I randomly heard, had to do with luxury lifestyle, I haven't got a clue. Neither did apparently the podcast's host, at least judging from his lack of any sort of push back or otherwise even modest softball questioning of the showmaster's claims. I suppose the old adage, you don't know what you don't know, still holds true. Frankly, the nonsensical aspirations by some to desperately tie in luxury lifestyle products to this fractured hobby of ours needs to stop, for I fear it is hurting us in the long run. No sane Bentley driver, Patek owner or Riva yacht jockey would ►



ever consider the world of HiFi just because some show somewhere in Birmingham parks a Riva Perseo yacht in the backyard in the hopes of attracting that type of customer. Friends, smell the Kaffeebohnen, this just ain't gonna happen. Stop pretending that it would and actually create a meaningful, scalable and attractive plan of action instead. It's the same reason that wasting hard earned dollars on advertising in luxe magazines has exactly the same zero return effect: there simply isn't any context provided for the lifestyle aficionados to connect the dots with. I know that YG's Sonja XV

Junior sounds positively insane. I know precisely why it commands the price of 180k. I know all that and then some, because I can provide the context to these lifestyle applications. I've read the story. I've connected the dots. Not through osmosis, rather decades of learnings, research and careful listening. Rupert Murdoch Jr. very likely can't, won't nor is he likely interested in doing so, and bling-bling ads in a fancy rags won't magically make him change his mind. However gorgeously restored red Corvettes parked in some hallway of said Irvine hotel sadly won't do so either. ►



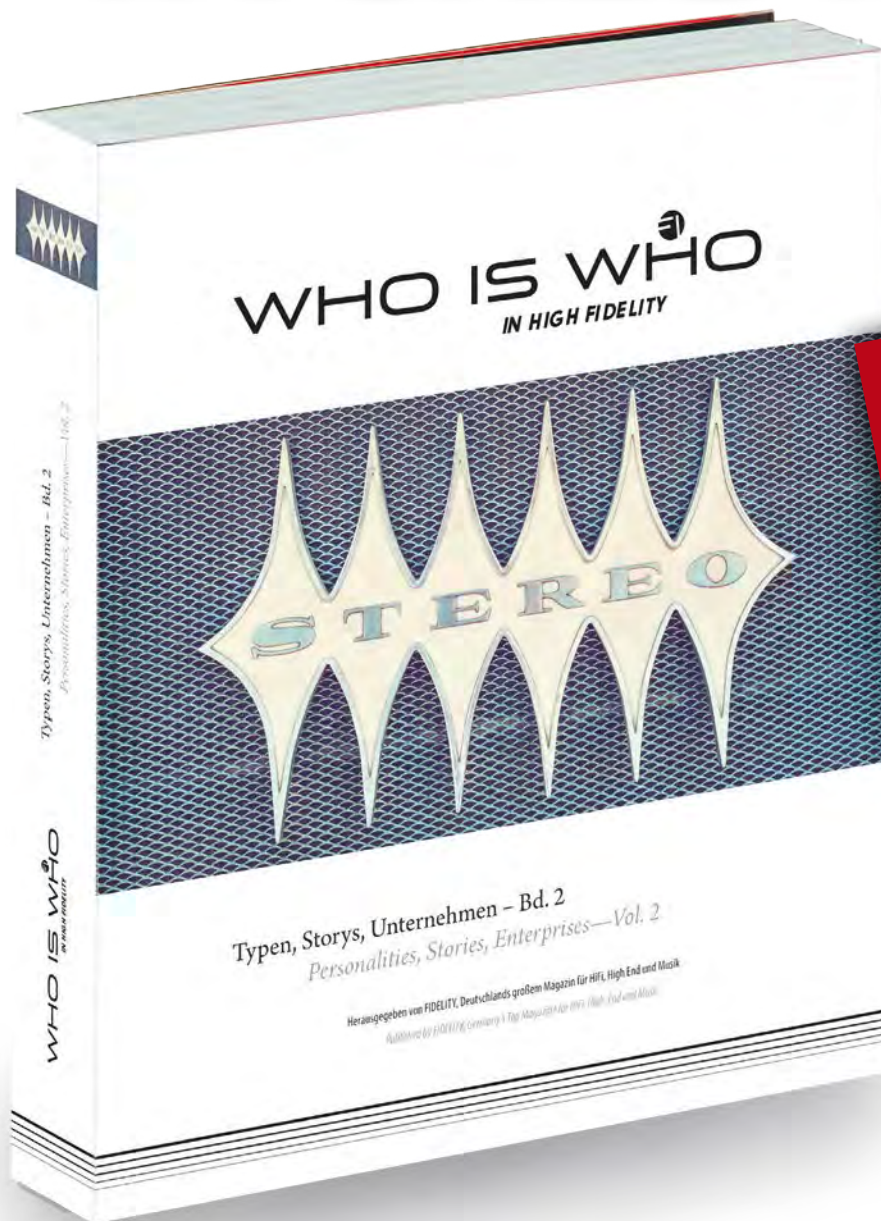
Wasted opportunities

Thus, we are back to square one. Like Munich—on a much smaller scale—T.H.E. Show was wasted opportunity. Could it have been something else? I'd wager so. For that to happen our collective group think needs to be exited stage left and a disruptor brought online. Looking ahead, I simply don't see any major

rethink happening, thus, Munich 2019 will very likely be similar to Munich of this year; so will T.H.E. Show, AXPONA and possibly all the rest and so on and so forth. Perhaps one day in the near future a brave enough disruptor will step up to the podium and revolutionize the helplessly aging HiFi show circus. Pivot from what was to what could be. It's desperately needed. ■

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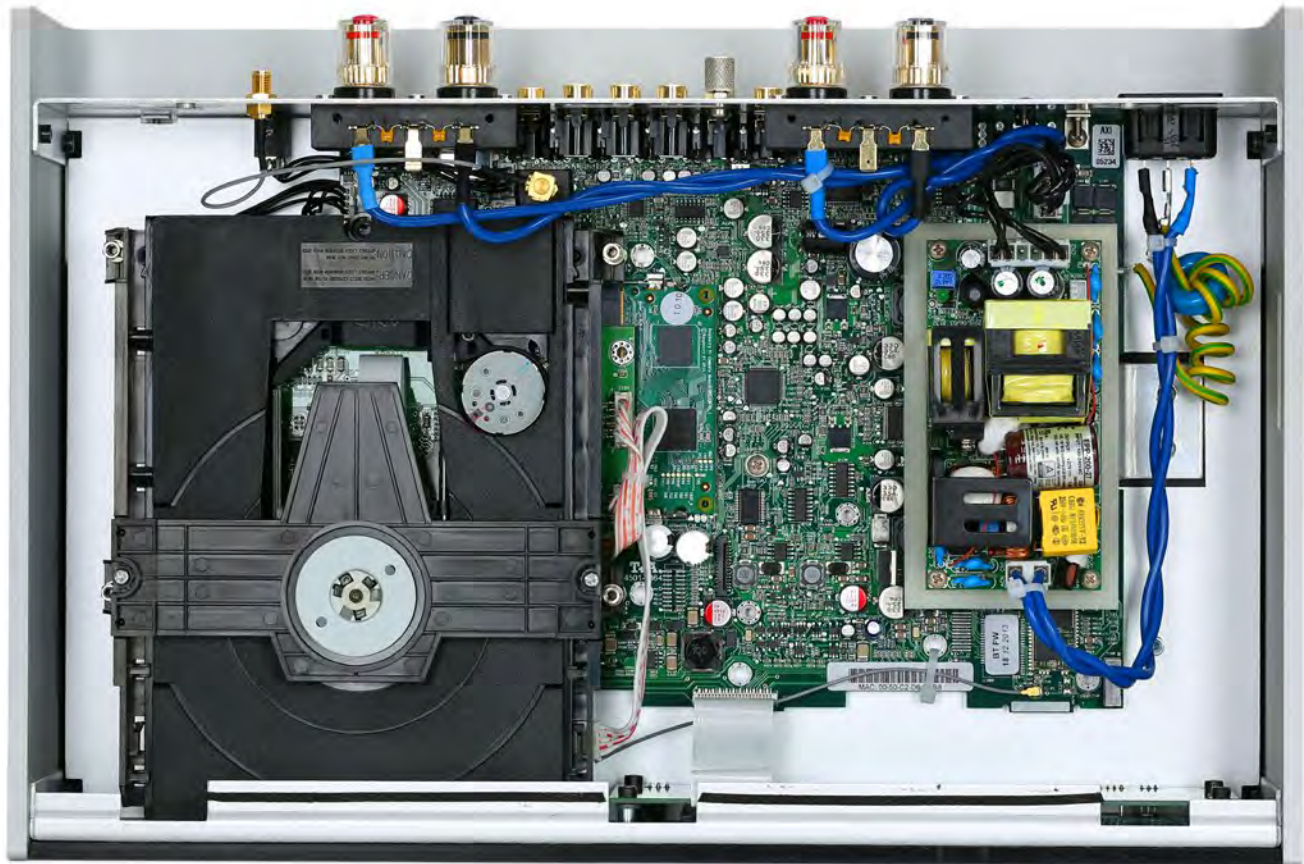
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T+A CALA CDR

By Nik Knüpling. Photos: Ingo Schulz





Not a lot has changed in terms of the elegant basic concept behind T+A's "CALA" series since the initial test we conducted for FIDELITY No. 3. It continues to be guided by the motto "more listening, less fiddling." The chic acrylic glass front of the larger CALA CDR (which, compared with the CALA SR, features a CD drive and considerably more power) doesn't even have an on-off button. All there is to see is the CD tray and the matrix display. Everything about this seven-centimeter-wider and one-kilogram-heavier CDR model from the CALA series has been reduced to the bare minimum. Its slim design, shallow construction, and black or silver aluminum housing as well as green, blue, red, or white ambient lighting makes it an understated eye-catcher that would fit on practically any shelf and look good with any interior decor. The minimalist design is only partially continued on the back thanks to the broad range of connection options available. After all, the CALA CDR also offers an optional antenna for FM radio, a

DAB+ receiver, a wi-fi antenna, connections for three digital and two analog devices, two USB 2.0 ports, and a LAN socket. Whew!

The option to connect the receiver to a home network and then use it as a streaming client for a home-based NAS music collection is particularly interesting. Fast, simple, and easy! What's more, streaming providers Qobuz and Tidal are already on board, with Deezer expected to join soon. The internet radio functionality provides access to an almost unlimited choice of radio stations and podcasts from all around the world; Bluetooth connectivity is also available.

Good looks and extensive functionality are just the icing on the audio cake at T+A. That's because even a less elegant version of the CALA CDR or one with only a fraction of its inputs and features would still be a desirable piece of equipment as this all-rounder is bursting with true T+A sound quality. All the audio processing is handled by a digital signal processor that includes a pair of nice, but from an audiophile ►



perspective unnecessary, sound mode that most importantly, however, enables the fine-tuning of treble, mid-range, and bass frequencies and even of a connectable subwoofer when needed. In fine discrete steps, the CALA CDR can be adapted to the dimensions of the connected loudspeakers, to their position in the room, and to the level of reflection in the room. With such optimized fine- CALA sounds elegant yet powerful and can coax unspectacular, middle-of-the-road loudspeakers into demonstrating qualities they could have only ever dreamed of. The CALA isn't just great for everyday use either: With a stable 100 watts per channel (almost twice that of the smaller CALA SR), the amplifier provides enough power to crank up the volume and really get the party started. Anyone worried that such elegance might mean CALA places form over function will be reassured that everything can be controlled either by using the remote control supplied with the device as standard or by using an app developed

for that purpose that can, of course, be downloaded for free. The classic remote control does perhaps supply a few more special buttons with only limited use than really necessary. I personally would have preferred fewer buttons with multiple functions. The app, on the other hand, is easy to use and allows you to operate almost all the available functions. It does, however, occasionally fall short in terms of transmitting commands to the CALA. The "classic" remote control, though, is very reliable in that regard and nice to use.

Overall, this slender, beautiful audio system that packs a punch is a true all-rounder. So if you're in the market for an "outstanding streaming server, receiver, amplifier, and CD player all rolled into one," look no further than the T+A CALA CDR. ■

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PRO-JECT PRE BOX S2 DIGITAL

By Nik Knüpling. Photography: Ingo Schulz







“This marks a new era for our S-series—it’s a performance revolution in a small package.” No, these words aren’t being used to describe the latest Audi model, but rather Pro-Ject’s Pre Box S2 Digital preamplifier. The only thing small about this device is its physical dimensions and it aims to upstage all the competition. The square-shaped (just about) all-rounder not only shares the same basic dimensions as a slab of Ritter Sport chocolate, it’s at least as handy and satisfying, too. It heralds the launch of Pro-Ject’s latest generation of compact hi-fi components that, after their turntables, have now become the Austrian audio specialists’ second core business line. The company has never made any bones about its ongoing objective for the modular “box” segment: to offer benchmark-setting performance at an attractive price. The latest generation is, of course, also expected to live up to that claim, and the Pre Box S2 Digital does look immensely promising.

The brand-new pipsqueak is loaded with all kinds of gear: For instance, the Pre Box S2 supports the MQA format—fortunately “Roon Tested”—plus it features a double mono configuration with high-quality 32-bit DAC chips from ESS. Sound sources can be connected using a USB (type B) cable, coaxial cable, or TOSLINK. If a computer is connected over the USB port, data can be transferred up to 768 kilohertz. When connected to a PC, the Pre Box S2 Digital doesn’t even need to be plugged into a power supply as the computer’s battery is enough to keep it running. Playback of the high-quality audio format DSD (up to DSD1024) is also possible over a computer. To ensure precise signal processing, Pro-Ject has installed two top-class master clocks into the pioneering model of the S2 line: One clock for 44.1 kilohertz and one for 48 kilohertz ensure extremely low jitter values; 100 femtoseconds is a peak value for modern DACs. This exact timing guarantees the preamp processes the ▶



supplied music almost free of signal interference and without influencing the original sound. Over RCA connectors, the digitally processed and converted signal supplies an analog signal to either power amplifiers (of course, Pro-Ject offers a few suitable candidates such as the tiny Amp Box S2) or active loudspeakers of any size. The Pre Box S2 Digital is, in any case, a clever starting point—whether you want a small, decent hi-fi system or a “high-end” large primary system. It’s guaranteed to knock your socks off! Those around you might not always want to experience the remarkable power of the S2 line with you. For such situations, there’s a standard 6.3-millimeter headphone output on the front of the Pre Box S2 Digital. When you connect your headphones, which should be top quality, too, the little Pro-Ject whiz mutes its RCA output and operates only the socket on the front. What’s particularly great here is the fact that the Pre Box S2 Digital notes the last volume level selected for headphones and RCA output and automatically reverts to that.

As you might imagine, music signals are fed in and out rather simply: cable in, RCA cable out, alternatively headphones. The stage in

between does, however, provide users with the freedom to configure their own sound. Thanks to seven different digital filters, the device lets users adapt and optimize the sound to suit their personal tastes. The result can be clearly heard in each and every case and reflects typical Pro-Ject qualities, which are exceptionally impressive and not just for this price category: The Pre Box S2 Digital sounds open, honest, and detailed; offers an incredibly broad range; and plays without pretension. The music is downright “undigital” and flows confidently like with a real heavyweight.

The attractive, immaculate housing only serves to reinforce the impression that the new S2 line demonstrates Pro-Ject has successfully taken a huge step forward in terms of its development of modular audio equipment. Extremely compact and of high quality, the Pre Box fulfills the company’s desire to achieve seriously good, modern signal processing.

Digital preamplifier | Pro-Ject Pre Box S2 Digital |
Price: €365

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This year, the music world is celebrating the 333rd birthday of Johann Sebastian Bach. His extensive body of work, one that continues to yield new wonders of number symbolism to musicologists, has spun on turntables at $33\frac{1}{3}$ revolutions per minute since the middle of the 20th century.

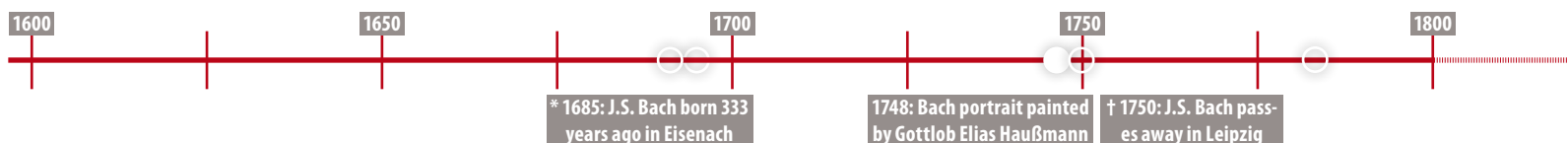
German “Archiv” productions, such as Helmut Walcha on the organ, marked the introduction of such records in the 1950s. But it was the young Glenn Gould who would first succeed in delighting international audiences with the Goldberg Variations in 1955. Throughout the following three decades as he recorded almost all of Bach’s piano works for Columbia/CBS, his essential companion was said to be his own piano bench, seat height: 33 centimeters.

In the 1960s, Bach’s music took on a swing sound—with jazz improvisations from Jacques Loussier and the Swingle Singers, whose scat songs made the counterpoints of Bach’s instrumental music pleasantly melodic.

Considered revolutionary at the time, the recordings of Nikolaus Harnoncourt introduced the rhythm of a new age, which opened up new approaches to Bach’s music employing original instruments and a historically sound and musically eloquent interpretation; he tirelessly produced recordings, including the entire sacred cantatas with Gustav Leonhardt for Teldec that began in 1971. ... —>

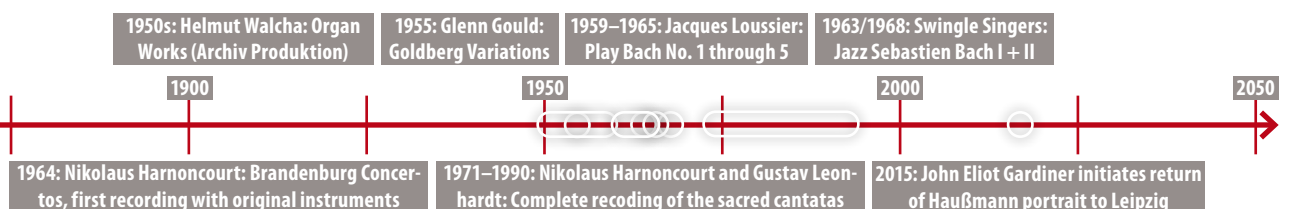


Glenn Gould’s chair





—> ...In the *Bach Cantata Pilgrimage*, an unusual project initiated by period instrument conductor Sir John Eliot Gardiner, Bach's 198 church cantatas were performed at more than 60 European churches and historical Bach sites in 2000 to mark the 250th anniversary of Bach's death. Gardiner enjoys telling how he grew up under the very eyes of Bach: In his parents' house in England, his family had temporary possession of the Bach portrait from 1748 by Gottlob Elias Haußmann pictured here, after the painting's owners had to escape Nazi Germany. Three years ago, thanks to Gardiner's initiative, this Bach portrait, the most splendid one we have, finally made its way from America back to its place of origin, Leipzig, where it's now housed at the Bach Archive.



PREVIEW

FIDELITY international No. 11

Dear Readers,

For all of you around the world eagerly, patiently, and faithfully waiting for the next edition of your favorite, free high-end audio magazine, you will not be disappointed. We have such a vast array of exquisite and even more exquisite devices in our offices that we can't possibly decide here and now what to talk about first. Things you can definitely look forward to, however, are reports on **Lyravox's** all-around worry-free package **Karl**, the **DAC 502** ▶





from **Daniel Weiss**, and the sensational loudspeaker cables **Suprema** from **HMS**. Or how about a test report of the legendary **Technics SL1000R** or **Audio Notes** long-anticipated **TT Three**? Or maybe you'd prefer more digital hi-fi like **Naims Uniti Nova** or the integrated amp with DAC **DIA-250S** from **Gato Audio**? Maybe we'll even take a look at the **Sonoma Acoustics M1** headphones with USB interface, too. Or the powerful loudspeaker **No.7.2** with Corona tweeter from **Lansche Audio**? As you can see, there's hardly any risk of us running out of things to talk about. We hope you're just as excited as we are. Stay tuned! FIDELITY international issue 11 will be available at the end of November 2018. Or whenever it's ready.



Imprint

FIDELITY® international (en)

FIDELITY® international is a free online magazine and published four times a year

private use only

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Germany

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Transcreation: Leinhäuser Language Services
GmbH, Munich-Unterhaching, Germany

Photo Title: Ingo Schulz

Art Director: Ralf Wolff-Boenisch

Advertising: If you are interested in advertising
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Ordering and dispatch service:

FIDELITY Media GmbH

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THE END

Thanks for reading issue 10 of FIDELITY international. Issue11 will be put online by November 2018 or when ready. Be prepared and subscribe to our newsletter to get the latest news at first.