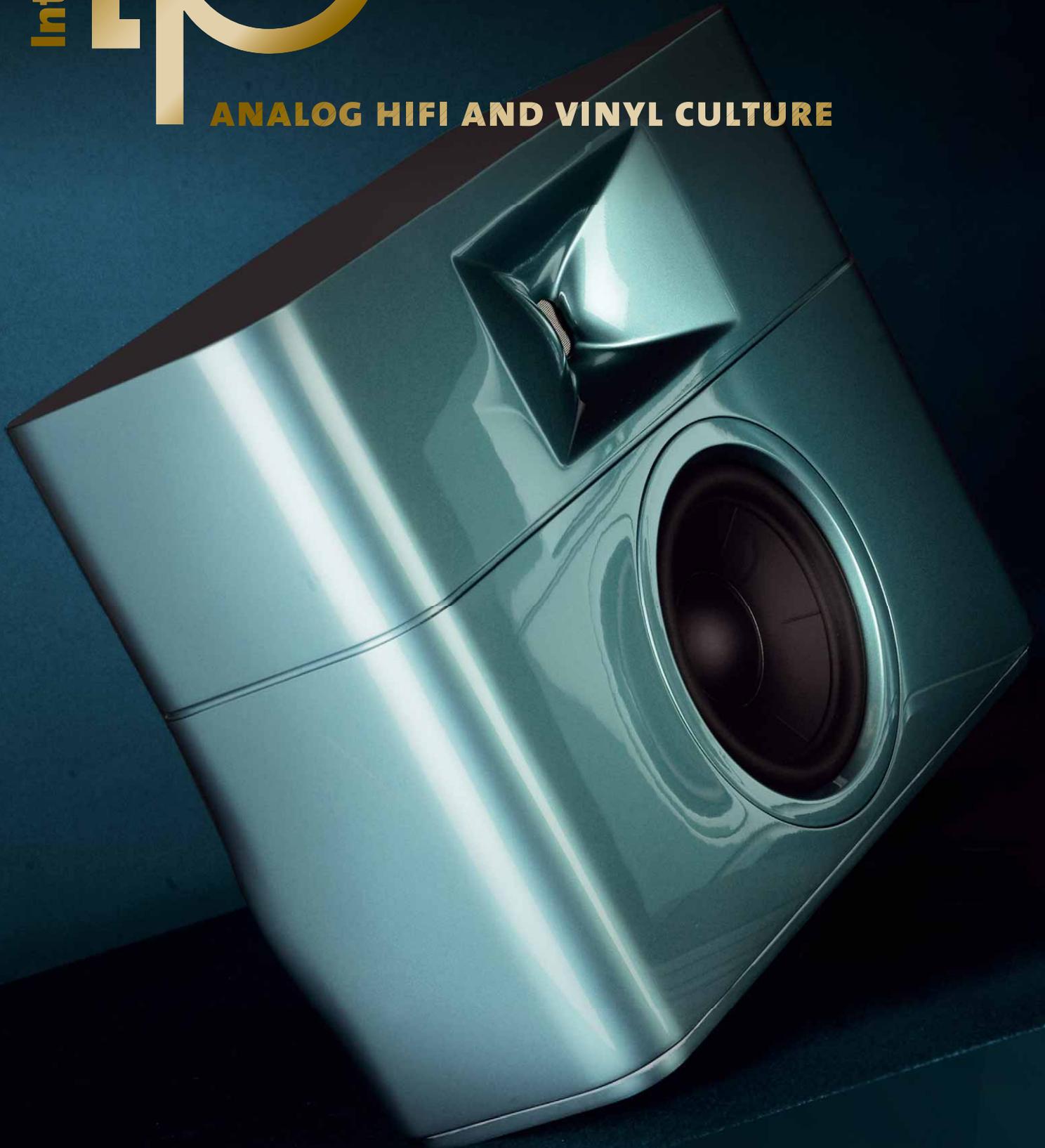
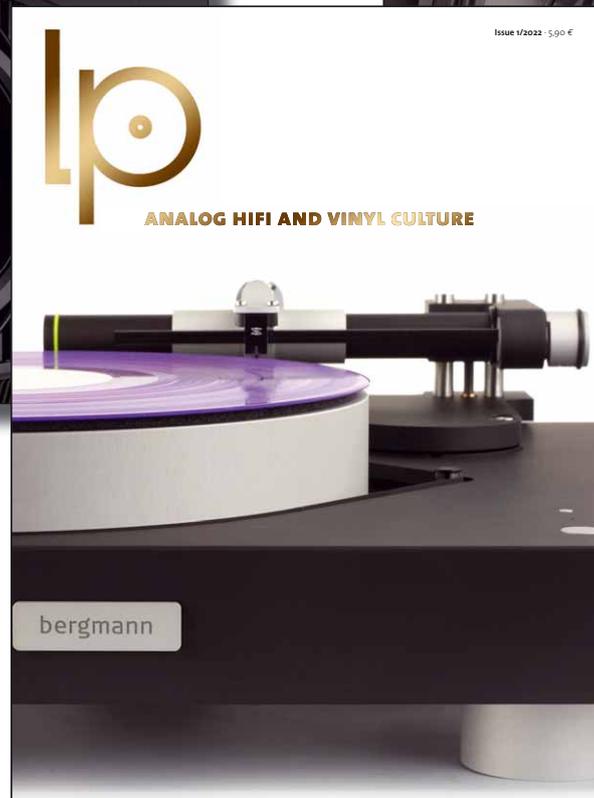


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Stage 1 Plattenmatte



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3S Point 1 Gerätefüße

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- schwarz
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International



## A HAVEN OF ANALOG TECHNOLOGY

All in all, those of us who are into analog music playback still have it pretty damn good. In an age of increasing “enshitification” across numerous product categories and services, our hobby is one that still offers real value.

Elsewhere, the picture is quite different: Did you know, for example, that around 40 percent of the tracks uploaded to Spotify these days are AI-generated—meaning not a single real artist was involved in their creation? Or, depending on your perspective, a myriad of real artists, since ultimately the AI just cobbles together its results from characteristics of existing music? To my knowledge, no track created in this way has yet been pressed onto a vinyl record—let’s hope it stays that way. The odds are in our favor: AI-generated music is, by and large, pure background noise with a minimal shelf life, so the effort involved in producing a record is hardly worth it.

Similar “lifelines” exist in the hardware we use to play our music. While you can’t buy a refrigerator these days that doesn’t insist on connecting to Wi-Fi and “improving” your life via AI features, there’s no need to worry about such frills when it comes to turntables and the like.

This is one of the many situations in which a purely analog approach is clearly advantageous.

*Holger Barske, Editor in Chief*





6



14



22



28



36

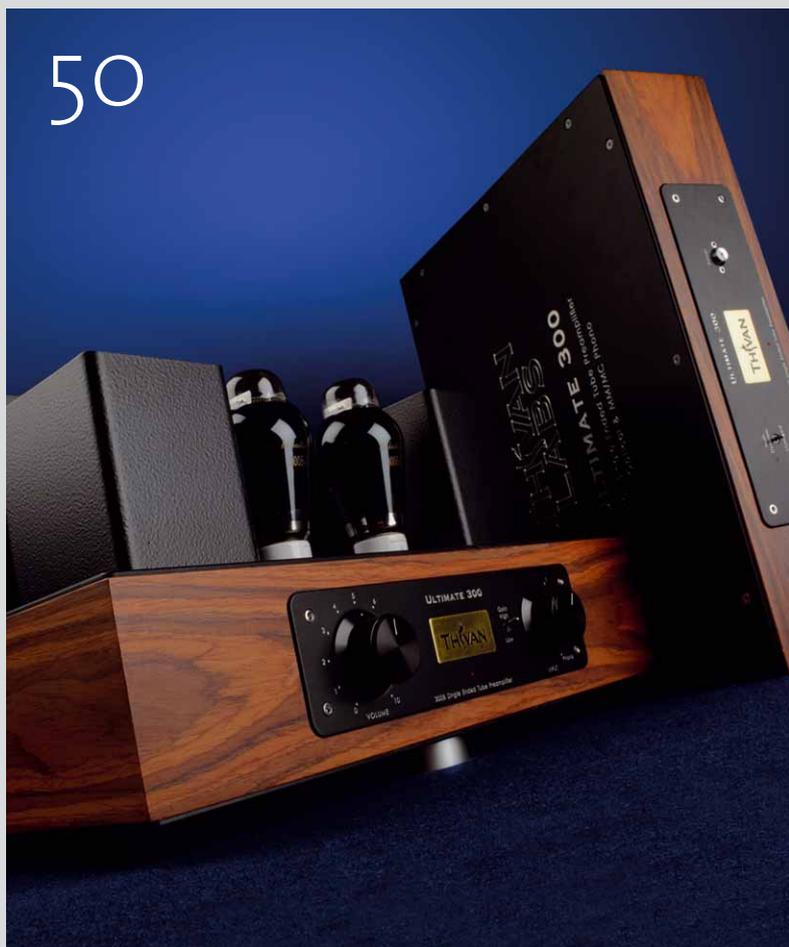
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# SMALL BOX, BIG SOUND

Of course, in the safety of our cozy analog corner, we run the risk of overlooking innovative developments in audio technology. So let's try something modern.







*The stands for the M1 are available as an option for an additional 1,690 euros*

## General

It has analog XLR inputs that need to be connected to a line preamplifier. At least in our universe (that's right, there's also an input for digital signals). So we can tolerate the massive use of switching amplifiers and DSP crossovers, right? Ultimately, you can use it to listen to music from vinyl records. And excellently, if I may add.

GGNTKT Audio is a small team of specialists from all kinds of fields related to loudspeakers. This includes industrial design and software. The cryptic name of the company becomes much clearer when you insert two "E"s and an "A," as it then becomes "Gegentakt" (push-pull), based on a basic configuration in amplifier technology. And a company with a name like that doesn't build run-of-the-mill products. This is evident at first glance from our test subject, the small M1 model ( 8,450 euros per pair).

## The M1 model

This is an extremely compact loudspeaker in backpack format. The older ones among us may remember – we used to carry something like this on our backs on the way to school. Since there was absolutely no room for the active electronics in such a compact housing, they were simply stored in an external enclosure, a flat unit in 19" studio format.

The speaker can either be used as a bookshelf speaker or mounted on the optional stands (1,690 euros per pair). The basic version is available in black or white, and all possible versions are available at an additional cost.

Now, the M1 is certainly not the first attempt to reduce a "real" full-size speaker to an extremely compact format, but the consistency with which this has been done here is unparalleled. The extremely compact cabinet contains four drivers, which seems highly unusual given the net volume of perhaps ten liters. Especially since three of these drivers are fairly large 17-centimeter low-midrange units. Of course, they didn't all fit on the front of the M1, so two of them ended up on the back of the speaker.

## Enclosure and drivers

The available volume is far too small for such a full-grown bass configuration. Passively driven, this would make for a great midrange speaker, but nothing more. Especially since there is no bass reflex system or other type of ventilation here; the enclosure is closed. Remember: this is good for excellent impulse response, but it also limits low-frequency reproduction. GGNTKT counters this problem with active compensation and plenty of amplifier power – we'll come back to that later.

But first, let's take a look at the front of the speaker, which houses the tweeter alongside the third low-midrange driver. And this is an ambitious design: the sound guide, neatly modeled into the enclosure,

is home to a full-grown pressure chamber driver with a 56-millimeter titanium ring diaphragm and a 44-millimeter voice coil. This is a format for full-grown PA applications. The manufacturer claims that the driver can handle peak levels of up to 125 decibels, which should be more than enough for home use. The waveguide, which is a kind of horn, is of crucial importance in this context. However, it is not designed for maximum efficiency, but for the most homogeneous sound distribution possible. GGNTKT is rightly proud of the very wide dispersion of this arrangement, which enables very homogeneous excitation of the room and ultimately results in a large sweet spot – so you don't have to sit glued to your listening sofa when listening to music.

## Teammates

### Turntable:

- [Transrotor Belline TMD Schiefer / TRA Studio / Figaro](#)

### Phono preamplifier:

- [YBA Passion PH150](#)

### Preamplifier:

- [Manlyey Neo Classic 300B](#)

## Competitors

### Active speakers:

- [JBL 4305P](#)

*170 mm drivers with metal membranes are used for the bass*





What we played

**My Sleeping Karma**  
Mela Andana Live

**Jarvis Cokerm, Chilly Gunzales**  
Room 29

**The XX**  
S/T

**Chick Corea**  
Return To Forever



*The connection to the active electronics  
is made via a Speakon cable*

The three 17s are extremely solid constructions with a modern cast basket, ventilated ferrite drivers, and coated aluminum diaphragm. A soft rubber surround allows for a linear stroke of a respectable 11 millimeters, so nothing should stand in the way of serious bass reproduction in this regard. The cabinet for this unusual design is only 140 millimeters deep, but 405 millimeters wide. Wide baffles are good, as they are a great advantage for homogeneous dispersion.

The design of the M1 is largely fluid, with the only really pronounced straight line being the shadow gap under the tweeter compartment. Valchromat was chosen as the construction material, which is a dense, high-quality variant of MDF, but with 30 percent higher strength. A five-axis milling machine was used to shape the enclosure, resulting in a housing that not only looks particularly organic but is also extremely stable.



*The flat housing contains a DSP and a few hundred watts of amplifier power*



*You can't go far wrong when connecting the controller*

## Electronics

A design like the M1 cannot be operated passively. That's why there is an external control unit that takes care of the adequate control of the eight drivers. For this purpose, there are three modern stereo switching amplifier modules from the renowned manufacturer Pascal, which provide ample power and also produce hardly any waste heat – this was the only way to make the electronics so compact.

The M1 is a 2.5-way system, which means that all three low-midrange drivers are responsible for the bass range, but only the front one is also responsible for the midrange. That's why three amplifier channels are needed per speaker. There is an optional upgrade that can further increase the nominal output power and stability of the power supply, but the 560 watts of total power offered in the basic version seem more than sufficient to me.

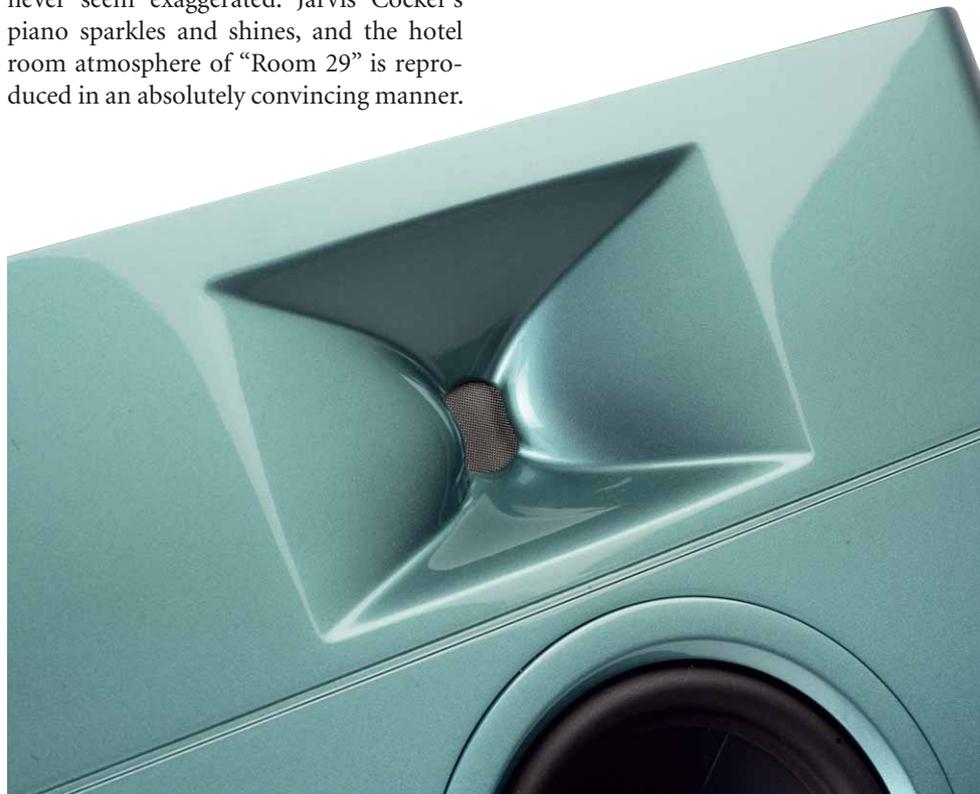
The low frequencies that cannot be achieved acoustically are then feasible with appropriate filtering and decent power: the speaker performs confidently down to below the 40-hertz mark, which is more than exceptional for such a compact speaker.

Filtering is handled by a digital signal processor, with the 32-bit SHARC chip supported by A/D and D/A converters with 24-bit resolution, which is absolutely appropriate in this context. As a user, you normally have no contact with the DSP; although it is possible to calibrate the speaker to the room, it also works perfectly and extremely linearly without this, as our measurements show.

## Sound

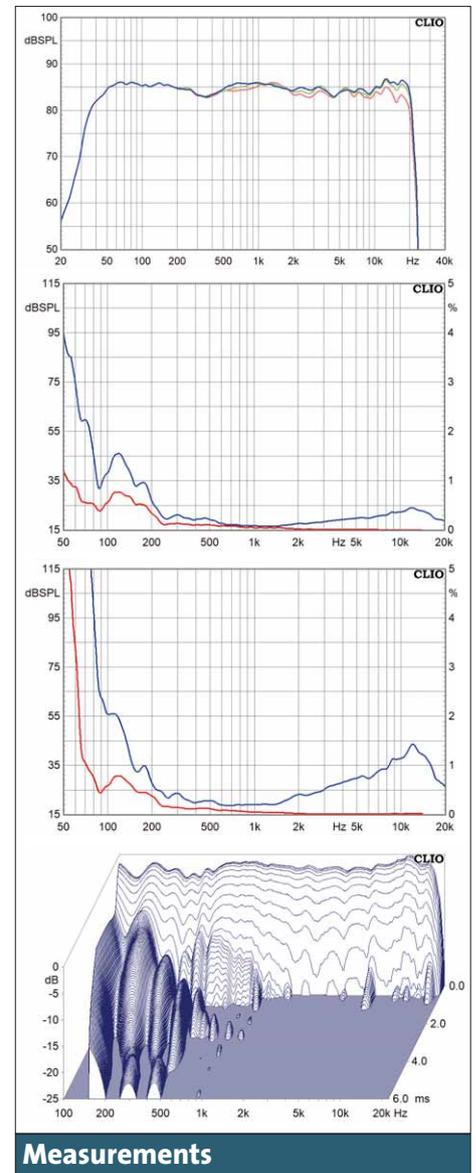
So ultimately, all you really need to do is connect an adequate preamplifier and surrender to the capabilities of this absolutely amazing transducer. And these become clear from the very first notes of the great live album "Mela Ananda" by My Sleeping Karma, one of my absolute favorite bands from the stoner cosmos: The M1 plays in a gripping, spacious way, with perfect separation of the action from the speakers. The atmospheric guitar parts waft wonderfully through the room, floating freely, everything flows. Tonally, the speaker is of the absolutely honest variety; the high frequencies have substance and power, but never seem exaggerated. Jarvis Cocker's piano sparkles and shines, and the hotel room atmosphere of "Room 29" is reproduced in an absolutely convincing manner.

*A pressure chamber driver with waveguide operates in the high-frequency range*





*The rear view of the M1. Two of the three woofers are located here*



#### Lab commentary

*The amplitude response of the M1 looks like it was drawn with a proverbial ruler and reaches below 40 hertz in the bass – very impressive. The high-frequency range falls above 2000 Hz. The amplitude response of the M1 looks as if it were drawn with a proverbial ruler and extends below 40 hertz in the bass range – very impressive. The high-frequency range drops off quite steeply above 20 kilohertz. The distortion values also appear very low at a remarkable 95 decibels sound pressure, and the waterfall diagram is free of any problems. Excellent job!*

And what about the bass? Amazingly convincing. Of course, the M1 won't tempt me to abandon my preference for fifteen-inch speakers, but what the M1 does with the synthetic low frequencies of "The XX" is quite sensational for a speaker of this size: powerful, deep-reaching – simply convincing.

*Holger Barske*

## GGNTKT M1



- Pair price
- Distributor
- 
- Phone
- Internet
- Warranty
- W x H x D
- Weight

from approx. \$10,000  
GGNTKT Roland Schäfer,  
Meckenheim  
+49 (0)2225 9989689  
[www.ggntkt.de](http://www.ggntkt.de)  
2 years  
405 x 319 x 140 mm  
approx. 11 kg

**lp** GGNTKT  
M1  
International 1/26

» Big sound from small cabinets?  
With the M1, GGNTKT shows  
how this can work very convincingly.

# THE ART OF BRAKING

Expensive hi-fi from Switzerland? There's plenty of that around, and it tends to be ranked alongside the well-known heavyweight products from the usual suspects. However, it's the understated, discreet stuff of the highest quality that is the spice in the audiophile soup. Like this wonderful turntable.







*The Simplicity II in copper finish is only available in combination with the Elegance drive*

Let's get straight to the point: the work of art under review here costs 28,000 euros with tonearm and cartridge. That is far beyond the reach of most hi-fi fans, but nevertheless a welcome exception to the usual high-end gigantism.

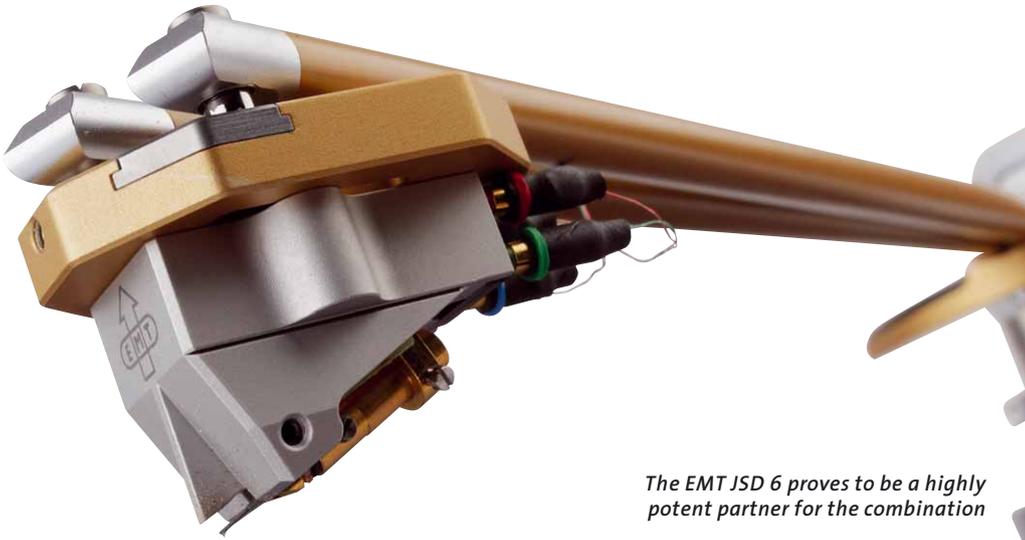
Designer Michael Huber, owner of Thales Audio, would probably reject such things outright. The man has a refined, quiet, and thoughtful demeanor, and when you interact with him, you quickly realize that his

work focuses on the finer things in life and not on loud, flashy big business. Nothing could bear more convincing witness to this than his latest turntable creation, called "Elegance." The name says it all, because elegance dominates every aspect of the device's design and construction. The appearance of the device is not unlike that of its predecessor, the "TTT-C," which we reviewed back in 2013. Both are belt-driven models with battery power, but that's where the similarities end.

The heart of the Elegance is its drive system. To call it a mere "belt drive" is almost an insult. In fact, Huber has created something of a work of art with the Elegance, which ultimately transfers the power of a motor to an inner plate via a blue plastic belt. It is an attempt to replicate the merits of its centrifugal governor, which it uses in its in-house "Reference" model, by electronic means. On the manufacturer's website, [thales.swiss](http://thales.swiss), there is a very interesting video under the "Technology" section that explains how the centrifugal regulator works. In principle, it is a sophisticated speed-dependent eddy current brake that keeps the belt speed constant without any electronic aids. This complex solution was out of the question for the Elegance, but a similar solution that requires very little electronics was considered.



*Visually unobtrusive, but a big player in terms of sound: the Thales Elegance*



*The EMT JSD 6 proves to be a highly potent partner for the combination*

None of this is visible from the outside. The Elegance presents itself as an unobtrusive, yet surprisingly heavy (17 kilograms) construction made of steel-blue anodized aluminum.

This looks very tasteful in combination with the copper-colored details and the tonearm, which was also manufactured in a copper-colored version especially for this turntable. The extremely solid platter of the Elegance rests on a very precisely fitting inner platter: due to the minimal dimensional tolerances, putting on and taking off the platter is not that easy. One of

the secrets of the Elegance drive is revealed in the form of two sets of three cylindrical neodymium magnets embedded in the frame. One set is located at the front left, the other at the rear right, both below the edge of the platter. These magnets, in conjunction with the turntable rotating just above them, provide a significant braking torque. What seems absurd at first glance makes perfect sense on closer inspection: even though many manufacturers promote particularly smooth-running bearings, a platter that runs as smoothly as possible is not the best choice, especially with a belt drive.

## Teammates

### Phono preamplifiers:

- Accuphase C-47
- Accuphase C-57

### Integrated amplifier:

- Soulnote A-3

### Loudspeaker:

- JBL 4301B
- Opera Quinta V2

## Competitors

### Turntable:

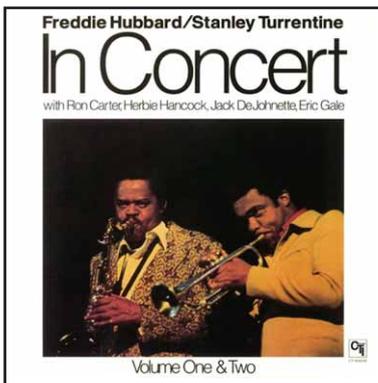
- Transrotor Massimo Nero / Studio 9" / Figaro



*The tonearm bearing block guides two tonearm tubes that do not run completely parallel*



*The arm allows for a practically perfect correction of the tangential tracking angle*



What we played

**Freddie Hubbard /  
Stanley Turrentine**  
In Concert

**Wishbone Ash**  
Argus 50th Anniversary 45rpm

**LA4**  
Live At Montreux

**Monolord**  
Rust



*Magnets are located  
on the outside under  
the edge of the platter,  
which act as brakes*

The “defined inhibition” also used in the Thales ensures that the motor constantly runs against a defined load, which keeps the belt tension constant and prevents the platter speed from oscillating around the nominal value, which can easily happen with “unbraked” drives. It never ceases to amaze me that this insight has only been adopted by so few turntable manufacturers.

The speed-dependent braking torque allows Michael Huber to incorporate a second beneficial detail into his drive: the use of a largely free-running DC motor. As a rule, this is not a good idea because this type of motor changes its speed depending on the load. However, because it runs against a practically constant load here, only very minor corrections are necessary. In the Elegance, this is achieved by gently intervening electronics, which indicate their influence via the lighting behind the two speed selection buttons. Green or red signals activity of the control system, while white means no intervention in the drive’s operation. You will notice that the colors

only fluctuate briefly when the drive starts up and the arm is placed on the turntable, then a reassuring white prevails across the entire side of the record: the drive and eddy current brake are in perfect balance. The Elegance’s motor does not operate completely silently, which is perhaps the only criticism that can be levelled at this drive. This may also be due to the fact that its axis is horizontally oriented and the belt therefore has to be deflected twice in order to drive the sub-platter. This is not particularly significant, as you can’t hear it when the music is playing, but it does detract somewhat from the otherwise perfect impression made by this turntable.

Incidentally, a toggle switch on the rear right of the frame allows you to determine how the charging electronics for the built-in battery work. The “Auto” position is likely to be the right one in almost all cases. In this mode, the charging electronics are completely switched off during playback, provided that the battery voltage is sufficient. Only when the platter has been stationary for one minute is the battery

recharged. A two-color LED indicates the operating status. All of this is completely unobtrusive and requires virtually no attention during operation.

### Tone arm and cartridge

Even though the Elegance is available without a tone arm, it makes sense to combine it with the wonderful in-house "Simplicity II." We already presented it in detail when testing the TTT-C, so here are just the basics: It is a tracking angle-corrected rotating tone arm with a rotating headshell. Its position relative to the groove is determined by the two tonearm tubes, which are not completely parallel and can be rotated independently of each other. The result is a tracking angle that deviates from the perfect tangent by only 0.008 degrees – a design that is still very impressive even after all these years, works perfectly in practice, and can be operated like any other rotating tonearm.

*The turntable is an extremely solid aluminum disc*



# AUDES



## Audes Power Conditioner

### Audes DT3600

#### Conclusion

Very convinced by this result, we decided to permanently entrust the DT-3600 with the supply of the system in our listening room. The sound improvement provided by the DT-3600 is so convincing, that there is hardly any alternative.

**Holger Barske, LP 2/25**



## Audes M Serie the new Standard

### Audes M 5

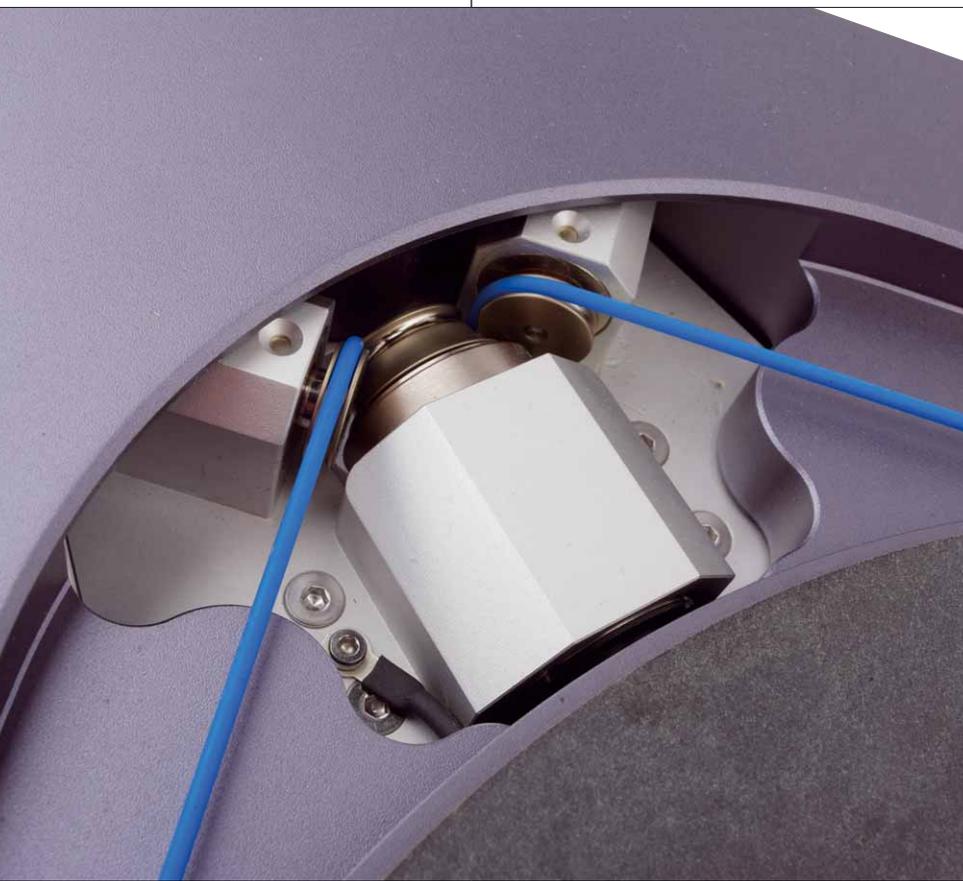
#### Conclusion

After decades of listening to even expensive speakers, I can lean out to say: The die Audes M5 is so good, that their price is almost cheap, but their class should scare the top dogs.

**Christian Bayer, LP 03/24**



TCG Handels GmbH  
Döppers Esch 7  
48531 Nordhron  
Tel. 05921-7884927  
info@tcg-gmbh.de



*The motor axis is horizontal, which is why the belt has to be deflected twice*



*The small toggle switch controls the battery management*

The cartridge is inserted into the headshell from the side via an adapter plate with a dovetail guide and secured with a tiny grub screw.

The Elegance package includes an EMT JSD 6 cartridge. This is a classic from the EMT range: Michael Huber has also been the owner of EMT for some time.

The JSD 6 is an MC with an unusually high output voltage (one millivolt at 5 cm/s). It features an “SFL HP” diamond mounted on a boron stylus carrier. The magnetic field of the largely open generator design is provided by a gold-plated AlNiCo magnet, and the housing of the ten-gram cartridge is made of aluminum. Individually, it costs 3,120, but in a package with a drive and tonearm, the surcharge is reduced to 2,500 euros. Sure, that’s still a lot of money, but after hearing the first few notes from the combination, the desire to try another cartridge immediately tends toward zero.

### Sound

The Thales combination is one of those rare designs that can do much more than its unspectacular exterior suggests. I would even go so far as to say that its magnificent timing and completely relaxed naturalness need not hide behind any overly pretentious turntable. Playback with the Thales breathes, vibrates, inspires, and lives in a way I have rarely experienced. Here, the interplay of the musicians in a top jazz ensemble can actually be experienced physically, which also increases the understanding of such music.

We devote ourselves to the incredibly great 45th anniversary edition of Wishbone Ash’s “Argus” (which our neighbor Lars discusses in detail in the review section of this issue). This classic sounds full, warm, relaxed, and perfectly transparent, revealing even to the unprepared listener why this band’s two-part guitar sound was so unique at the time. For me, the Thales combination is an almost unbeatable tool for musical understanding. And I can’t pay a turntable a bigger compliment than that.

*Holger Barske*

## Thales Elegance



· Package price	22,800 euros
· Distribution	HiFiction EU GmbH, Mahlberg
· Phone	+49 7825 879470
· Internet	<a href="http://www.thales.swiss">www.thales.swiss</a>
· Warranty	2 years
· Dimensions (W x H x D)	435 x 120 x 320 mm
· Weight	approx. 18 kg


 Thales  
 Elegance /  
 Simplicity II /  
 EMT JSD 6  
 International 1/26

» This work of art of a turntable is an incredibly expressive music machine that crowns its understated physicality with outstanding sound performance. Truly great analog art!

# PHONO SUMMIT

It has been five years since Accuphase cemented its position as the benchmark in the world of phono preamplifiers with the C-47. Now the time has come for a changing of the guard: the C-57 aims to significantly surpass its predecessor. But is that even possible?







The biggest visual difference to the previous model is the second large knob on the left side of the front panel



The two encapsulated toroidal transformers are exemplary quiet

Four inputs also qualify the C-57 for large phono installations



I won't hide the fact that I don't really like this kind of thing. Five years ago, I eagerly set about dissecting the concept of a phono preamplifier that the world had never seen before, trying to uncover the secrets of the brand-new Accuphase phono, which was "unheard of" at the time, based on just a handful of high-resolution photos. When it actually became available, it turned the market for such devices upside down with impressive thoroughness, and quite rightly so. Five years later, I am faced with the problem of having to credibly explain that this was not the end of the story and that there was still so much room for improvement in the field of phono preamplifiers that a C-57 makes a C-47 look pretty old. Which is nonsense, of course, because the release of the C-57 hasn't made the C-47 any worse – it still sounds just as fantastic as it did five years ago.

In general, product development at Accuphase means perfecting details and carefully refining what has already been achieved. With the "modern" phono preamplifiers – starting with the C-27 model from 2008 – I am always amazed at how big the leaps in development are compared to their predecessors. The C-57 is no exception. It differs from the C-47 in many respects.

Accuphase places even greater emphasis on consistently symmetrical signal routing and has introduced an innovation in the MC department that has already led to significant advances in the latest generations of preamplifiers, power amplifiers, and integrated amplifiers. The abbreviation "ANCC" stands for "Accuphase Noise and Distortion Cancelling Circuit," and this is indeed something new.

Accuphase has long relied on signal amplification in the current domain and only makes the transition to the "voltage world" very late in the signal path. This has a whole range of advantages and is what makes the ANCC trick possible. The purpose of ANCC is to detect noise and distortion components in the signal and eliminate them by feeding in an opposite-phase current. The circuit places high demands on the quality of the "correction amplifier," which requires very careful component selection and a high degree of selectivity. This is something that Yokohama has clearly mastered with flying colors.

Before we get lost in technical details, let's take a look at the big picture first.

Visually, the C-57 differs only minimally from the C-47. A few changes to the front panel layout are more cosmetic in nature,

which Accuphase likes to do when changing models. For example, the input impedance selector switch has now been replaced by a “proper” rotary switch, whereas on the C-47 this function was still performed by a small button below the display. We are also pleased with the new option of terminating MCs with 60 ohms. The operation is self-explanatory on both sides. A rotary switch with a very satisfying click – made by Accuphase itself, of course, as is the one for the input impedance – allows you to select four inputs. That’s not something you see every day either. The three unbalanced phono connections can be used with MM or MC cartridges, while the balanced XLR connection is reserved exclusively for MC operation. As with the C-47, Accuphase argues that balanced operation of MM cartridges can lead to problems under certain conditions – for example, when the chassis ground is connected to one of the signal ground connections, which is quite common with MM cartridges. Using the “MM/MC” and “Gain” buttons, four gain levels between 34 and 70 decibels can be set, which guarantees suitability for all situations and, unsurprisingly, corresponds exactly to the measured values. Incidentally, MM pickups can be terminated with 1, 47, and 100 kiloohms, which is a very unusual feature.

On the rear panel, you’ll find the four pairs of input jacks mentioned above, each of which actually has its own solid ground terminal. Anyone who has ever tried to squeeze several ground connections under a pole terminal will appreciate this kind of foresight. On the output side, there are of course XLR and RCA connectors, and the C-57 wouldn’t be an Accuphase device if the polarity of the XLR sockets couldn’t be switched.

The impression of perfection down to the very last detail – and I’m happy to repeat myself here – is rounded off by an uncompromising cabinet construction with finely polished real wood side panels and, in line with the current design trend for cabinet tops, a gently brushed aluminum top. The result: just under 15 kilos of absolute pleasure.

The sophisticated circuitry reflects the absolute high standards of the C-57, even for the untrained eye. The large amplifier board is a work of art in terms of layout, with a huge number of components. Both “wired” and SMD components are used, with the manufacturer taking a completely pragmatic approach to the peaceful coexistence of discrete and integrated semiconductors. The board is divided symmetrically according to channels and function groups. Another interesting feature is that the input amplification for MC cartridges is handled by eight bipolar transistors connected in parallel, while three parallel JFETs are used for MM cartridges. Power supply? Luxurious – that goes without saying. Each channel has its own shielded and encapsulated toroidal transformer, which stands out for its exemplary low noise. A generous power supply board in the middle of the housing uses discrete stabilizer circuits to regulate the supply voltages, also neatly separated by channel. Accuphase didn’t compromise on the circuit board material either, choosing a Teflon-based circuit board material with particularly good high-frequency properties. What’s still missing? Perhaps a transimpedance (current) input for MC cartridges.

## Teammates

### Turntable:

- Thales Elegance

### Tone arm:

- Thales Simplicity II

### Pickup cartridge:

- EMT JSD 6
- Lyra Atlas Lambda

### Integrated amplifier:

- Soulnote A-3

### Loudspeaker:

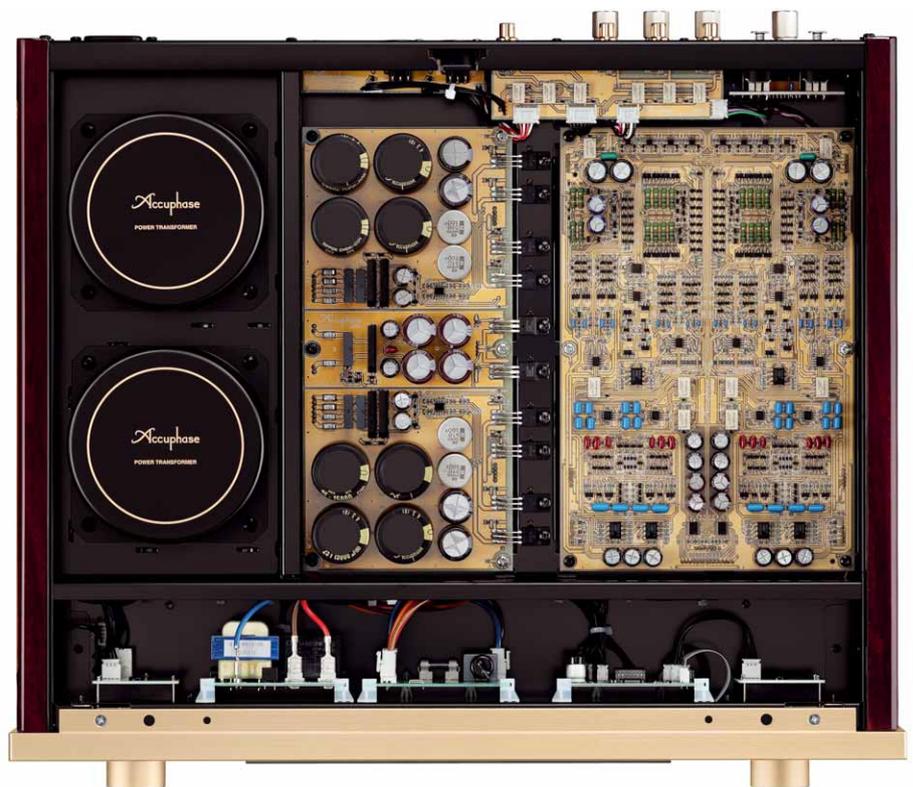
- JBL 4301B
- Opera Quinta V2

## Competitors

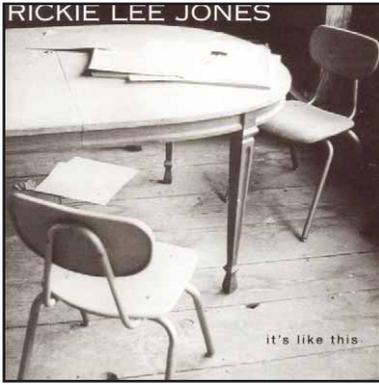
### Phono preamplifiers:

- Accuphase C-47
- Thrax Cotys

*A textbook design – electronics couldn’t be more consistent*



Rickie Lee Jones – It's Like this

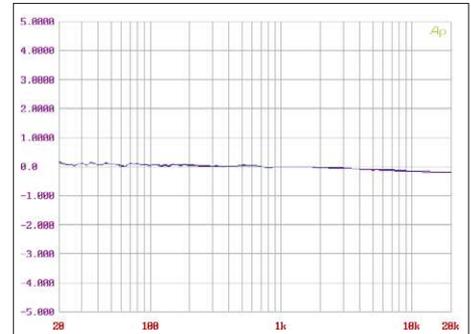


What we played

- Rickie Lee Jones**  
It's Like this
- Montgomery Brothers**  
Groove Yard
- LA4**  
Live At Montreux
- Chet Baker**  
Chet

Or one for electro-optical cartridges from DS Audio. But something has to be left for a potential C-67 in perhaps five or six years' time.

In any case, here and now we can rejoice in a phono preamplifier that may still perform at the level of its predecessor when connected asymmetrically, but clearly outperforms the C-47 in symmetrical operation. Even with a cartridge like the superb EMT JSD 6, which doesn't quite bring out the extreme capabilities of the C-57 in the lowest signal voltage range (the EMT delivers a rich millivolt at a speed of five centimeters per second), the C-57 opens up the space like hardly any other phono preamplifier before it, creating an almost frightening realism and an absolutely thrilling performance. Never before have I experienced Rickie Lee Jones on the excellent 45 rpm edition of "It's Like This" (2000) in such a dramatic, detailed, and emotional way. But that's not all the C-57 is capable of conveying: if you want even more subtlety, profundity, and magic, you can try a caliber such as the Lyra Atlas Lambda, with which the C-57 enters into a practically perfect harmonious symbiosis. The last bit of harshness disappears, the degree of relaxation increases—something I would hardly have thought possible before. This is best understood with the great Montgomery Brothers album "Groove Yard" from 1961. The extremely soulful recording thrives on the interplay with the still young stereophony, and this setup celebrates timing, rhythm,



Measurements

Lab commentary

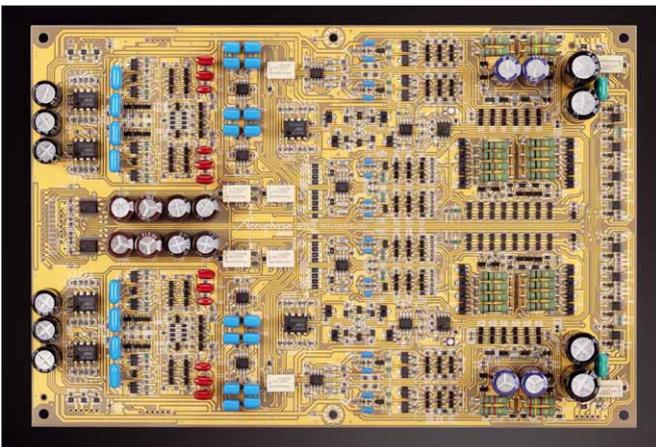
As expected, the C-57 offers virtually the same measurement perfection as the C-47 did in its day. The frequency response is perfectly RIAA-compliant, and the signal-to-noise ratio and channel separation are practically impossible to improve upon. At minimum gain, we measured 78.6 and 77 decibels (A) at 5 millivolts, and at maximum gain, we still measured 69.4 and 65.4 decibels (A) at 0.5 millivolts input voltage. The distortion values were 0.012 and 0.18 percent. The device consumes 21 watts of power.

and feeling to an absolutely outstanding degree. Even for people who don't usually care much for jazz quartets, this is a revelation in terms of musical magic. The C-57 plays a significant role in the spectacular stage presentation and perfect separation of the instruments, clearly outperforming the C-47 in this regard. Hard to believe, but undeniable. And a clear statement in favor of symmetrical pickup connections.

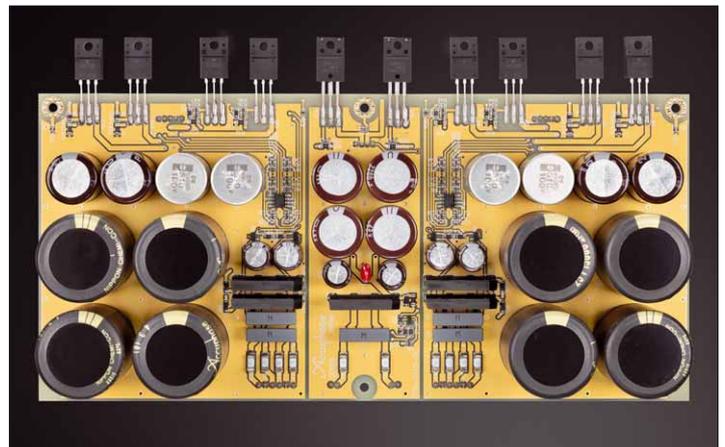
Holger Barske



Every component in an Accuphase device is special. Even the custom-made filter capacitors



The main circuit board has a mirror-symmetrical design



The power supply circuit board provides channel-separated operating voltages

## Accuphase C-57



- Price
- Distribution
- Phone
- Internet
- Warranty
- Dimensions (W x H x D)
- Weight

10,500 Euro  
 PIA HiFi, Weiterstadt  
 +49 6150 50025  
[www.pia-hifi.de](http://www.pia-hifi.de)  
 2 years  
 465 x 114 x 407 mm  
 approx. 15 kg



Accuphase  
C-57

International 1/26

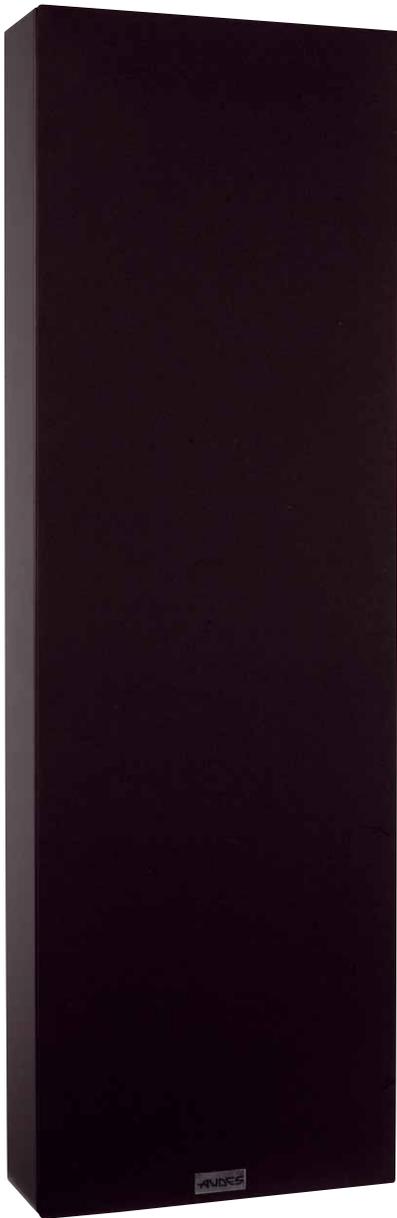
» Admittedly, anything else would have been a disappointment: the brand-new Accuphase C-57 sets standards in terms of timing, sophistication, and the way it makes music flow. The absolute phono dream

# IT DOESN'T ALWAYS HAVE TO BE CINEMA

Originally, the Custom series from Audes was built solely for home theater purposes. However, over the course of this speaker's nearly 15-year history, there have been changes to its tuning. Today, the 527 appeals more to hi-fi listeners. People like me, for example.







*The scope of delivery includes a cover*

Audes products have often been featured in LP and HiFi Test. Both of the Estonian company's main products were considered: the speakers and the power conditioners (which are now also available in white). One of them, the DT-3600,

has become an indispensable part of our listening room. Once you get used to it, you simply don't want to listen to anything else. However, in a standard hi-fi system, it doesn't necessarily have to be the most powerful conditioner in the portfolio.



*Here you can clearly see that the cabinet depth is very shallow*



*On the rear,  
mounting brackets are  
provided for both orientations*

For the German market, the distributor, TCG Handels GmbH, has pleasantly reduced the somewhat excessive and confusing range of speakers. Basically, only the truly excellent M series is available for purchase in this country (although, if you really want to, you can also inquire about the other models). The two speakers in the M series (actually three) have already been featured in this magazine. However, we are talking about a different price range, not least because of the elaborate cabinet. The 527, on the other hand, costs 3,700 euros

per pair, with a unit price of 1,850 euros. So if you want to buy a center speaker, you can also buy the speaker individually. That's still a lot of money, but this is a speaker that doesn't come from China. There are also smaller models in the series, all of which are ideally used with a subwoofer because bass is (deliberately) not their strong point. As a customer, you can choose between a black or white housing (matte or high-gloss) and whether you want to buy the speakers as a built-in version (in-wall) or to hang on the wall (on-wall). Oh, and then

*The Audes 527 has been designed so  
that it can be mounted vertically ...*



*... and horizontally, for example, when  
used as a center speaker*

## Teammates

### Turntable:

- Transrotor Massimo nero / Studio 12"

### Pickup cartridge:

- Transrotor Figaro

### Phono preamplifier:

- Thivan Labs P20

### Loudspeaker:

- Klang + Ton Nada
- MiTO audio Vector

## Competitors

### Integrated amplifier:

- Trilogy 921
- Soulnote A-3





## What we played

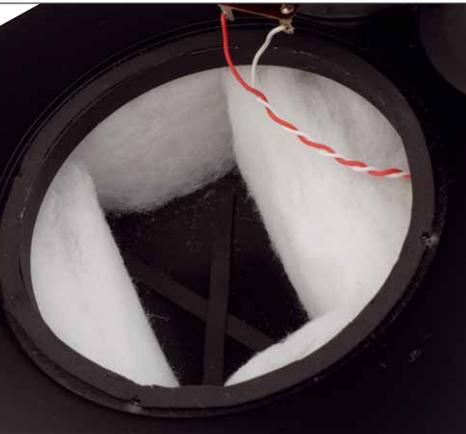
**Fiona Apple**  
When The Pawn ...

**Muff Potter**  
Bei Aller Liebe

**Dream Theater**  
Six Degrees Of Inner Turbulance



*Despite the dual low-midrange drivers, there is no bass here; the cutoff is around 70 Hz*



*Inside you can see damping material and struts for added stability*



*Each speaker has two 6.5-inch polypropylene low-midrange drivers*

you have to decide whether to install them vertically or horizontally. I can imagine both of them looking great next to a TV, either way. Or rather, they do look great – you can see for yourself in the configurator on the manufacturer's website ([audes.ee](http://audes.ee)). What's cool is that there are different sized bezels, so if you ever switch to a significantly larger TV, you can adjust the speaker to fit.

## Technology

The price suggests that the drivers are not just off-the-shelf products, even though the manufacturer does not reveal any details. All we know is that the 1-inch aluminum tweeter has a horn-like sound guide, which relieves the driver somewhat at high levels. The two polypropylene midrange drivers on each side have a diameter of 6.5 inches. This, together with the tall (or wide, depending on your point of view) but flat cabinet, enables bass reproduction down to around 70 hertz when placed very close to a wall. In other words, if you want to use

the speakers for listening to music, you'll need a subwoofer, otherwise the sound will be a little thin.

## Listening test

Out of interest, I first listened to the speakers freestanding in our large (62 square meter) listening room. Slightly tilted backward. The speakers, that is. And I liked them right away because they deliver a sound image that I really like. They are reminiscent of studio monitors, they play so cleanly and clearly. There is a lack of (low) bass, of course, but that's in the nature of things. What they do, they do wonderfully. Speech intelligibility is superb, and voice reproduction is very nice. Overall, the speaker sounds lively and crisp, but not intrusive. The Audes 527 delivered Metallica's "Fight Fire With Fire" with great transparency and very good resolution. With Fiona Apple's "When The Pawn...", a rather bass-heavy album, it was nice to hear the opener "On The Bound" in a slim version, but it's also clear that this is not ideal. So I quickly

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**5 drivers on the test bench**

· In-deep reviews from our test lab with all specifications p.36



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**1986**

**Pure  
understatement**

· No-nonsense floor-standing  
speaker with Scan Speak  
drivers p.8

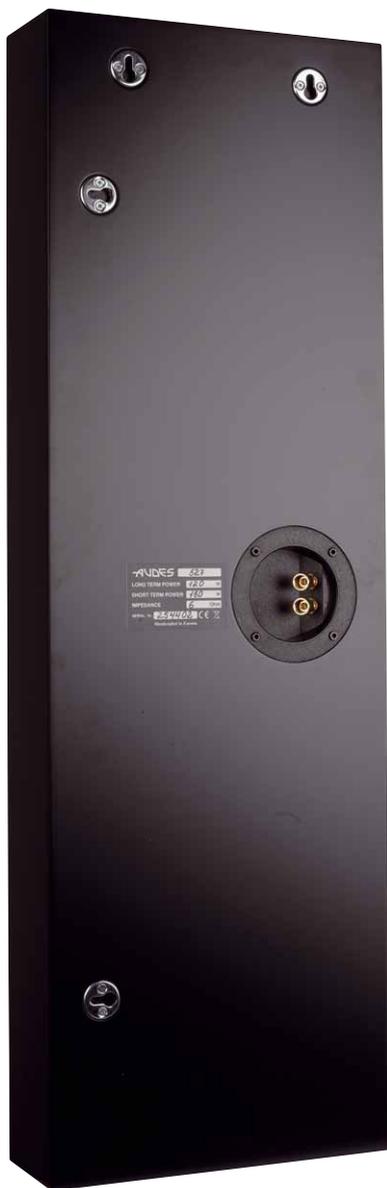


**State of the art**

· Powerful amplifier combination  
by Hypex p.14



*The tweeter is protected from curious and cheeky fingers*

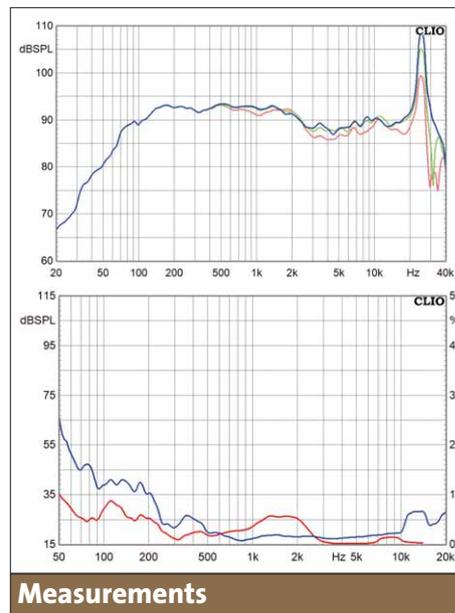


*Auf der Rückseite sind für beide Ausrichtungen Aufhängvorrichtungen angebracht*



brought a subwoofer into play. And wow! After that, I didn't miss anything; the virtues of the speaker remained completely intact, of course, but now there was also something going on at the low end. An unexpected side effect of the low-frequency support was that the imaging gained in spatial depth, which is almost always the case when you bring in a bass master. So I dared to put on Dream Theater's "Six Degrees Of Inner Turbulence" (see review section). The prog metal band's album is lightning fast in places and not very warm or bass-heavy by nature. Combined with a lower cutoff frequency of only 70 Hz, it's not something you should try. But with a trio of Audes and SVS, it was really enjoyable. And even with this material, what was particularly noticeable with classical and jazz was that the music detached itself from the sound transducers with astonishing lightness, which is simply a great pleasure. So, be sure to give it a listen!

*Alexander Rose-Fehling*



#### Lab commentary

*The Audes on-wall speaker has a broadband frequency response with a slightly subdued presence and high-frequency range. The efficiency is enormous, while the lower cut-off frequency on the wall is around 70 hertz. The powerful resonance of the tweeter is outside the audible range. Distortion is low across the entire frequency range, even at very loud 95 decibels, and there are no disturbing resonances. With an impedance curve consistently above 4 ohms, the Audes is not amplifier-critical. Inside, you can see damping material and bracing for greater stability. The tweeter sits in a horn-like sound guide for greater efficiency.*

## Audes 527



- Price per pair 3,700 euros
- Distribution TCG Handels GmbH, Nordhorn
- Phone +49 5921 7884927
- Internet [www.tcg-gmbh.de](http://www.tcg-gmbh.de)
- Warranty 2 years
- Dimensions (W x H x D) 876 x 278 x 97 mm
- Weight approx. 13 kg



» The Audes 527 speakers have undergone a long development process. They deliver a very detailed and precise sound, combined with a lively performance and remarkable airiness. They are ideal in combination with a subwoofer.

# AT HOME

We receive a wide variety of devices for review. Occasionally, one of them strikes a particular chord with me. Such is the case with the EAR Phonobox(es).

*EAR Phonobox*

*EAR Phonobox*



VOLUME



POWER



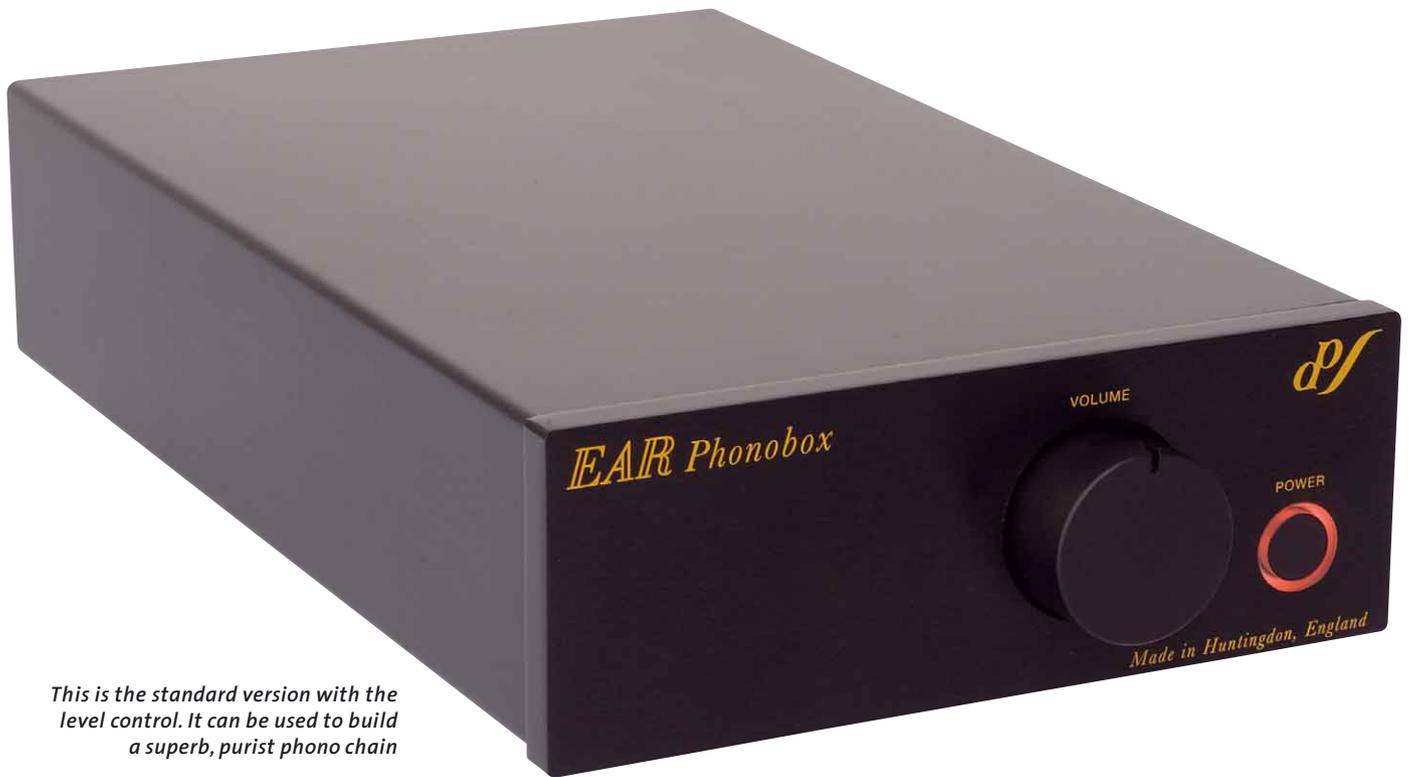
*Made in Huntingdon, England*



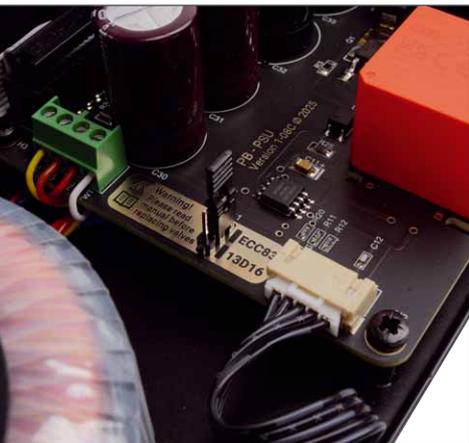
POWER



*Made in Huntingdon, England*



*This is the standard version with the level control. It can be used to build a superb, purist phono chain*



*Even the Phonobox couldn't do without modern IC technology. However, the chip is not relevant to the signal*

Of course, I once had a Phonobox in my system myself, back then still in the original version as the EAR 834. That was certainly 25 years ago, right after I had repositioned myself after a break from analog. The re-entry with the Lehmann Black Cube was great, but it only really took off with the 834, specifically the simpler version with a volume potentiometer.

### 834 becomes Phonobox

The EAR 834 came onto the market in the mid-80s. It was developed by Tim de Paravicini, the inventor of many ingenious circuits. The device was cleverly designed, but somewhat cheaply made. For example, the RCA jacks were soldered onto the circuit board and tended to cause humming when used frequently. Components? You



*Speaking of purist: you can only connect one pickup to the Phonobox. If you need more, you'll have to reach higher up the EAR shelf*



*As far as we know, the standard 13D16 is a Russian 6N2P specified for EAR, a variant of the ECC83*

could forget about them. But the circuitry was capable, and the sound, the sound was simply seductive. Okay, the bass could be a bit too much at times, and it may not have been a world champion in terms of resolution. But it had such a “warm” basic sound, that feeling of well-being, like sitting in front of a steaming hot meal on an uncomfortable November day, it was just right. Not long before his death in 2020, Paravicini significantly revised the 834 once again

and turned it into the Phonobox. Above all, he tackled the signal-to-noise ratio, and it worked perfectly. We’ll hear in a moment that this final revision didn’t detract at all from its fascinating sound.

### Legacy

I always get an uneasy feeling when I visit a website and get the impression that people who have long since passed away are still alive. This is the case with the English

## Teammates

### Turntable

- Schröder TG
- Garrard 401

### Tone arm:

- Schröder CB Ebony
- Schick 12

### Pickup cartridge:

- Koetsu Urushi Black
- Dynavector 10x5 MKII NEO

### Preamplifier:

- Air Tight ATC-1 HQ
- Stax SR-12 (modifiziert)

### Power amplifier:

- Air Tight ATM-4 / 6A3 Eintakt DIY

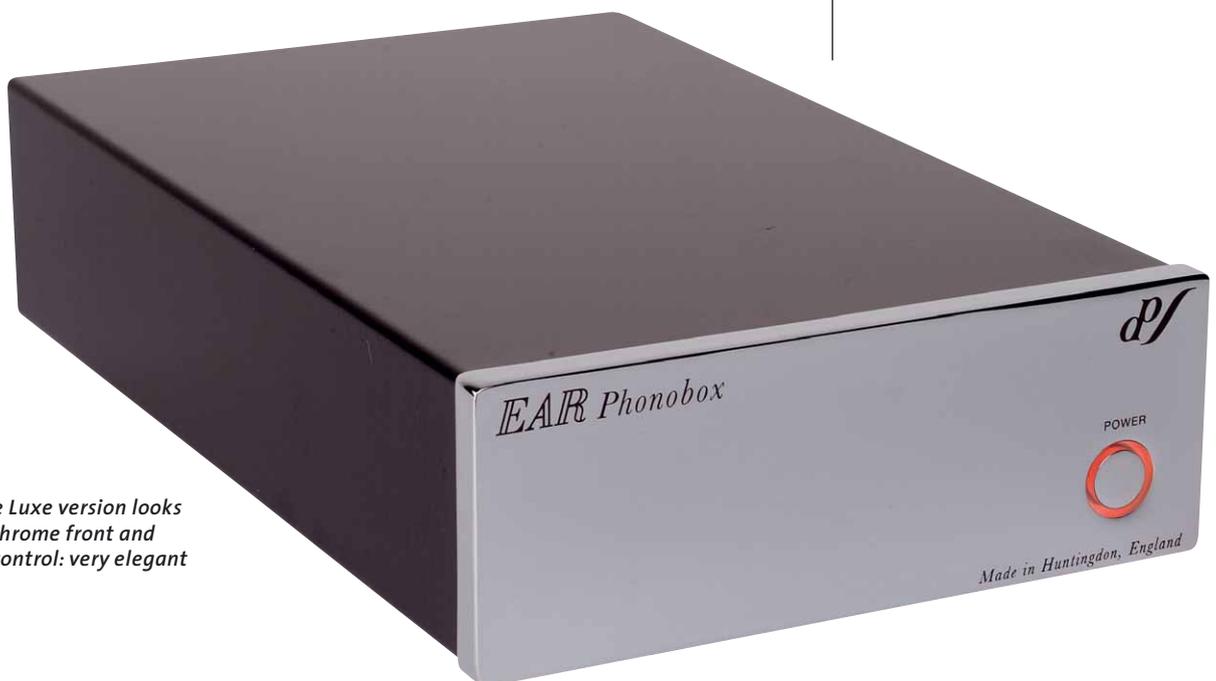
### Loudspeaker

- De Vore o/Baby / Greenwall Ivy

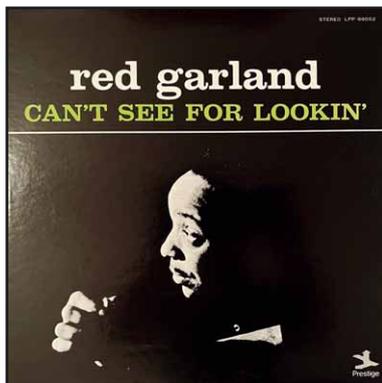
## Competitors

### Phono preamplifier:

- Air Tight ATE-2005 / DBL The Wand



*This is what the De Luxe version looks like with its solid chrome front and without the level control: very elegant*



## What we played

**Red Garland**  
Can't see for lookin'

**Anton Bruckner**  
7 Sinfonie (Günter Wand 1980)

**The Remarkable Carmell Jones**  
Same

**Talking Heads**  
Exit

**Bill Withers**  
Best of

EAR website, because it gives the impression that Tim de Paravicini is still alive. Yes, the man was EAR, but I think it would be better to be open about the fact that he is no longer alive. The Danish distributor of EAR told me that Tim left behind various circuits. That's wonderful, and if they were to point out that Tim's son Nevin de Paravicini is now implementing them bit by bit in collaboration with experienced EAR employees, everything would be fine and fair in my opinion. But enough of that. One such product is the HP 1 headphone amplifier, which is now coming onto the market.

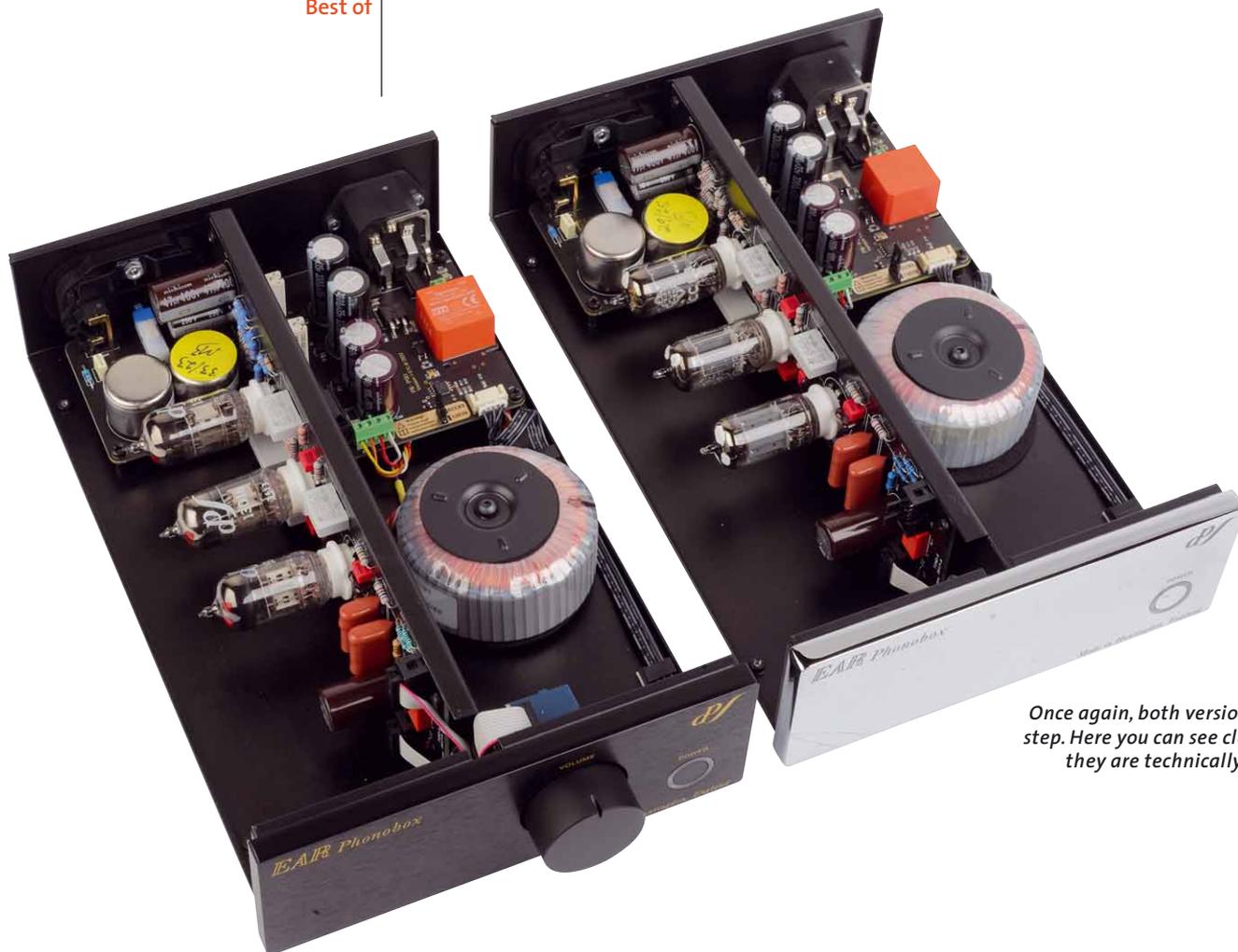
## Technology

There is no concrete information about the circuit, so you have to search through the various versions on the internet. The only thing that is certain is that Tim developed this latest, current version of the Phono-



*This is the De Luxe version with De Luxe tubes, which the distributor provided us with: Telefunken ECC83 Smooth Plates*

box himself. The RIAA is active-passive and also has a very wide bandwidth. The Phonobox comes with three 13D16 double triodes as standard. If you try to find this tube, you will discover that it does not of-



*Once again, both versions in lock-step. Here you can see clearly that they are technically identical*

ficially exist. It is likely to be a version of the Russian 6N2P produced for EAR. This is also a double triode and a very good tube if it is carefully selected. Because they don't grow on trees, as he would like them to. So much for now, the Phonobox sounds excellent. Of course, you can also plug in ECC83s, but you have to flip a switch to do so. Why? The ECC83 can be operated with 6.3 or 12.6 volts, depending on whether its heating voltage is connected in parallel or in series. The 6N2P, on the other hand, only runs on 6.3 volts and has a different pin assignment. The output voltage for MM is 2.2 mV, for MC 0.22 mV for 40 ohms and 0.15 mV for the 5-ohm version, which I'll come to in a moment. The gain in MM mode is a whopping 55 dB (47 kOhm) and a very healthy 72 dB (at 470 ohms).

## Variants

It's simpler than it might seem at first glance: there is a pure MM or an MM/MC version. And then you can choose between the standard and the deluxe chrome look; technically, they are the same. I find it interesting that the MM version always comes without a volume control, but the MM/MC variants offer it as an option at no extra charge. I wouldn't have a problem using the standard version with the potentiometer, as I did in my second system, because the extra cost for the technically identical version with a chrome front is steep – \$1,990 versus \$1,470 for the standard version. Without the MC transformers, the Phonobox costs only \$1,325 as a pure MM version. The big advantage of the MM/MC version with volume potentiometer is that it allows you to build a purist analog chain: connect the power amplifier – done. I mentioned my second system, and it worked exceptionally well there. There is another difference that also comes at no extra cost: you can choose whether to install MC transformers with low (5 ohms) or high impedance (40 ohms) – the latter being ideal for a Denon DL-103. The small cartridges are manufactured in England and are also a Paravicini design: toroidal cores wound with copper wire and a Mu-metal core.



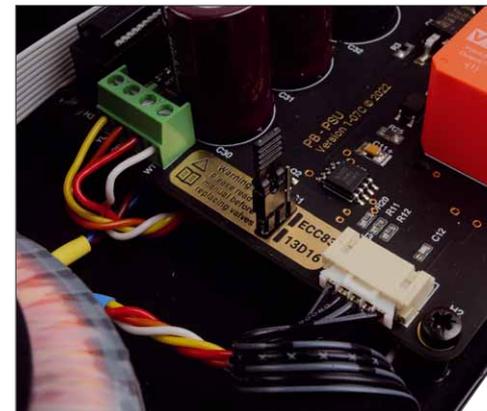
*Like the entire amplifier, the input board is now of much higher quality than the earlier 834 models*



*And this is the version with the standard tubes and the 40-ohm MC transformers for high-impedance cartridges*



*The input board with mains filter, screening, and jumper. This is much better made today than it used to be*



*Here you can see the jumper for the different tube types. It is essential to position it correctly*

*The De Luxe version is technically no different from the standard version. It is unusual for a distributor to supply high-quality "old" tubes*



Here is another look at the small transformer capsules, which are manufactured in the United Kingdom according to EAR specifications

And here from the back. The sticker is there to remind us that the 5-ohm MC transformers are built in

### Practical use and music

We received both MM/MC versions: the most elegant one with a thick chrome front without a volume control and MC transformers with 5 ohm impedance. This one went straight to my main system and was connected to the Koetsu Urushi Black. I plugged in the Telefunken ECC83 supplied by the distributor, which works excellently. And then we got the standard version with volume potentiometer and 40-ohm transformers. Here, I opted for MM mode (selectable via a push button on the rear panel) and connected my Dynavector 10x5 MKII NEO high-output system, con-



### Lab commentary

Both versions of the Phonobox are impressive. The version with a fixed output has a slightly wider bandwidth than its sister model: here, the frequency response extends to 100 kilohertz!

The total harmonic distortion is 0.03% in MM mode and 0.06% in MC mode. The signal-to-noise ratio is above average at -84 and -65 dB(A) respectively. Channel separation is a good -50 dB(A).

necting the Phonobox directly to my 6A3 single-ended power amplifier. The same applies to both setups: you don't need any special knowledge or in-depth experience to have fun with these devices right away. That's because both Phonoboxes play in a refreshing (and indeed refreshed) way that's just right: rich, colorful, awesome bass – it's simply fun and ultimately exactly what we want. On my office system, the simple version with the Dynavector was an instant dream match, playing Bill Withers' "Just the Two of Us," for example, so intimately, so true to the original and colorful, with the voice standing in the middle of the room and Grover Washington's saxophone right behind it. When a component manages to make such a hackneyed number sound new, fresh, and exciting, it's nothing short of magnificent. And in the large setup on the Koetsu Urushi Black, Bruckner's 7th Symphony under the strict but humane Günter Wand gripped me so much that for the first time I was ready to fully appreciate all the inner details, all the different tempos and the sheer triumph of this composition.

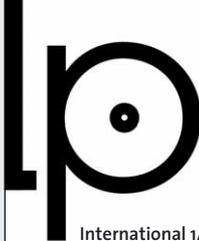
Christian Bayer



## EAR Phonobox



- Price from 1,325 euros
- Distribution Exotic Audio / Copenhagen
- Phone 045-35-11 27 70
- Internet [www.exoticaudio.dk](http://www.exoticaudio.dk)
- Warranty 2 years
- Dimensions (W x H x D) 180 x 65 x 320 mm
- Weight approx. 3.5 kg  
(Chrome version approx. 4 kg)



EAR  
Phonobox

International 1/26

» Perfectly redesigned classics that make listening to music a pure joy. I think they're outstanding.

# EVERYTHING EXCEPT BLACK

I love specialist shops. Unfortunately, they are increasingly dying out, but they still exist: specialist retailers and manufacturers. Like Karlo Klein, who designed his transformer specifically for use with EMT cartridges.



SUT110



*Premiere in black. Certainly not an eye-catcher, but that's not what Karlo Klein is interested in. For him, only the result counts*

The idea of having a transformer for almost every conceivable pickup in the range is understandable, but questionable in practice. With transformers in particular, the transformation ratio should be tailored to the target pickups, which can be roughly divided into low-impedance and high-impedance models. And that's exactly



*Admittedly, it's not exactly sexy. But the reliability of the connectors is crucial here*

what Karlo Klein does with his SUT110 for high-impedance MCs. The transformer is so named because SUT stands for “step-up transformer” and it has a transmission ratio of 1:10. Now that we've cleared that up, Karlo Klein makes no secret of the fact that he particularly appreciates EMT systems, and his transformer is optimized for them. However, it can also be used for other high-impedance systems, such as the classic Denon DL-103, as a quick check confirmed.

### Prelude

During a very pleasant conversation with Karlo Klein, I immediately understood why I like his transformer so much: the man is sensitive and interested in one thing above all else: good sound. He writes on his website:

“My most important tools are my musical memory and my hearing.” He also states that he is a “technician with heart and soul.” I might have written “craftsman,” but the direction is clear. He began his career as an automotive electrician, then moved on to the development and manufacture of complex medical devices (including ventilation equipment) at the University Medical Center Freiburg. But the virus, this incurable hi-fi virus, has accompanied him, as it has me, his entire life. Klein became known for drives for various manufacturers and then for his own stylish and very sophisticated drive. He also builds a good phono preamplifier and now also an MC transformer. A word about my title: until now, every color was available in the Klein Technik cosmos, as long as it was silver. The SUT110 is the first Klein Technik device in black.

### Development

He has the transformers themselves wound in Germany by a studio technology specialist who used to build EMT transformers. Since Klein is an EMT fan, as mentioned, this was an easy decision. He discussed the key points of his transformer with his partner, optimized the shielding and grounding, and then tuned and finalized it by ear. He doesn't want to go into details such as wire thickness, core materials, or the like – fine by me. Just this much: it's a copper transformer and it doesn't have any toroidal cores.

Karlo Klein is not a fan of these, as he finds their frequent capacitive coupling annoying. There is a maximum short direct wiring to the optional silver WBT Nextgen sockets. However, he only recommends these if you do not have gold-plated plugs on the cable, otherwise the materials will clash and their advantage will be lost.

These sockets are indeed designed to provide a tonal accent, as Karlo Klein told me. The mid-high range in particular sounds more present and airy with them. I find this exciting, because I often experience this distinction, which is subtle but still audible, when listening to really good silver cables or transformers with silver windings.

It's cool that this seems to work, because based on my listening experience, the SUT110 has exactly these characteristics.

### Listen?

I don't have an EMT at home, but my Allaerts ECO MKII fills the gap. It was once referred to as an EMT in a Sunday suit, as Allaerts used EMT generators, at least in the past. Since it still has a coil impedance of 22 ohms, this could still be the case. I usually listen to it with my Air Tight ATE 2005 phono preamplifier, specifically with its active preamplifier. It's a perfect match, both electrically and acoustically. The Klein Technik transformer really has to stretch itself here, especially since the Allaerts is quite critical when it comes to transformer quality. To achieve this, I play around with the matching resistors. Here's a little...

### ... digression

The calculations involved in matching MC cartridges to transformers are also academic. Yes, there are formulas that can be used to approximate the ideal, and the use of downstream cartridges should certainly be limited. It goes without saying that the basic parameters must be correct. But with

my Consolidated Audio transformer, matching resistors don't really make sense; they make it sound worse rather than better. Maybe it's because it's so transparent and any additional intervention means audible attenuation, I don't know. In any case, I can hear it. But what I can also hear, and here I agree with Karlo Klein, is that the Allaerts sounds better with an adjustment resistor on its transformer. I can't really say exactly why that is. My Allaerts is almost half as loud as a typical EMT, which means I have to do the math again: with a terminating resistor of 47 kOhm on my phono preamplifier and the 1:10 transmission ratio of the Klein Technik transformer (20db), the effective impedance is 470 Ohm, which is far too much for the Allaerts, because it would prefer 100 Ohm. However, if I went to 1:20, it would be a bit loud with its 0.6 mV output voltage. Now the Klein comes along and, bang, with a 130 ohm matching resistor, it sounds outstanding. Does that result in 100 ohms? No. So it turns out that pure calculation, just like pure measurement, is not the end of listening; it cannot be. This is because the interactions between the impedance and output voltage of the pickup, the transmission ratio of the transformer, and the parallel-connected matching resistor are complex. Let's leave it at that. I'm going to listen to music now before I lose interest in all the calculations and thinking. And the SUT110 couldn't do anything about that.

## Teammates

### Turntable:

- Takumi TT Level 2.1 DC

### Tone arm:

- Takumi

### Pickup cartridge:

- Allaerts MC1 Eco MKII
- Denon DL-103 GL

### Preamplifier:

- Stax SR-12 (modifiziert)

### Power amplifier:

- Eternal Arts OTL Mark III Commemorative Edition

### Loudspeaker:

- Greenwall Ivy

## Competitors

### Phono preamplifier:

- Air Tight ATE-2005



The cartridges that make the music. You can't buy them; they are made for Karlo Klein, and that's a good thing



Okay, there's still room for improvement in terms of screen printing. But the silver WBT sockets really deliver in terms of sound quality



## What we played

**Johnny Cash**  
American IV:  
The Man Comes Around

**Bad Company**  
Bad Co

**Play Bach**  
Jacques Loussier Trio

**Modern Jazz Quartet**  
The Last Concert

**Jeff Parker ETA IVtet**  
The Way Out of Easy

## Adaptable

That's not true at all; the topic of adaptation isn't quite over yet. Unlike me, Karlo Klein is convinced that a transformer must be adaptable, otherwise its optimal function would be, as he says, "a matter of luck." His main argument for this is that he has had more than one phono preamplifier in his hands that had 56 kOhm or 39 kOhm instead of 47 kOhm. I admit, this is new to me, but after asking Christian Isenberg, it turned out that Lavardin phono stages have 56 kOhm.

So: keep your eyes open when it comes to adaptation. When developing the SUT110, Klein tried out a wide variety of options for designing adapter plugs and/or sockets. His decision to use 9-pin D-SUB sockets and plugs is quite surprising, because I've never seen that before. His argument is that they provide reliable contact and are not hyped despite their quality, as they do not have audiophile connotations. They are easily available, cost practically nothing, and provide very reliable contact – what's not to like? Incidentally, the matching resistors work secondarily, which is why the D-Sub socket is also placed below the output sockets for the shortest signal path. Three pieces are included in the scope of delivery, as requested by the customer. As mentioned,

the Allaerts finally clicks into place with a terminating resistor of 130 ohms: the divine Summertime version from the Modern Jazz Quartet's last live album floats in just the right measure, beautifully colorful, light, elegant, and authentic.

## More music

Johnny Cash's incredible version of Desperado sounds soft, elegant as the finest thread, very touching, colorful, and authentic. I have to hear that again right away. And yes, I feel the same way the second time around. I haven't listened to Play Bach in a while, but I can't remember ever experiencing this music so wonderfully, so 3D-like. I find it truly incredible how delicately, almost softly, Pierre Michelot plucks his bass. The signature of the instrument always remains perfectly contoured and does not blur into the melodious sound. It seems to me that the Klein SUT110 complements my Allaerts perfectly. It brings out exactly what makes the system so distinctive: attack with style, so to speak. Like a Daimler Double Six (the luxury version of the Jaguar XJ12), its Fritz Gyger II stylus glides almost inaudibly through the groove, wonderfully smooth and always ready to spring into action – just like the car cat. And yes, I also tried an EMT with it, the JSD6 in our fabulous Thales Elegance. And, as expected, it also works excellently. Even with harder music, such as Bad Company's Can't Get Enough, I get attack, timbre, space, and emotion. It's all there in the music, but not everyone can bring it out.

*Christian Bayer*

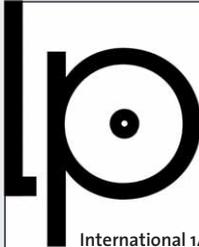


*The design is like its creator: no nonsense. Except for a thick aluminum plate, there are no extras, not even circuit boards*

## Klein Technik SUT110



- Price from 1,850 euros  
(2,000 euros as tested)
- Distribution Klein Technik / Offenburg
- Phone +49 781 91933457
- Internet [www.kleintechnik.de](http://www.kleintechnik.de)
- Warranty 2 years
- Dimensions (W x H x D) 106 x 55 x 164 mm
- Weight approx. 800 g



Klein Technik  
SUT110

International 1/26

» The SUT110 is a great transformer for EMT and other high-impedance MC cartridges. With its adjustability and silky smooth sound, it is one of the best of its kind.

# QUATTRO STAGIONI

No, we didn't end up at an Italian restaurant, and we didn't order pizza either. Instead, we're at a Vietnamese restaurant that has something truly special to offer when it comes to hi-fi haute cuisine.







*Here's a nice black version: two 300B tubes provide the high-gain amplification*

The Thivan Labs Ultimate 300 is a pre-amplifier of a very special kind, because it actually handles something like all four seasons: It can handle high-level sources, MM cartridges, MC cartridges, and, last but not least, electro-optical DS Audio systems.

#### **In general**

As if that weren't special enough, this impressive two-part machine does all of this using tube technology. The icing on the cake: part of the amplification is handled by two classic 300B triodes, which, as is widely known, are arguably the most famous power tubes on the market and have been doing their glowing job since the 1930s. In hi-fi circles, these classics – originally designed to amplify telephone signals – are used in the vast majority of cases as power tubes to drive loudspeakers, and despite their modest power output of just a few watts, they send audiophiles all over the world into ecstasy.

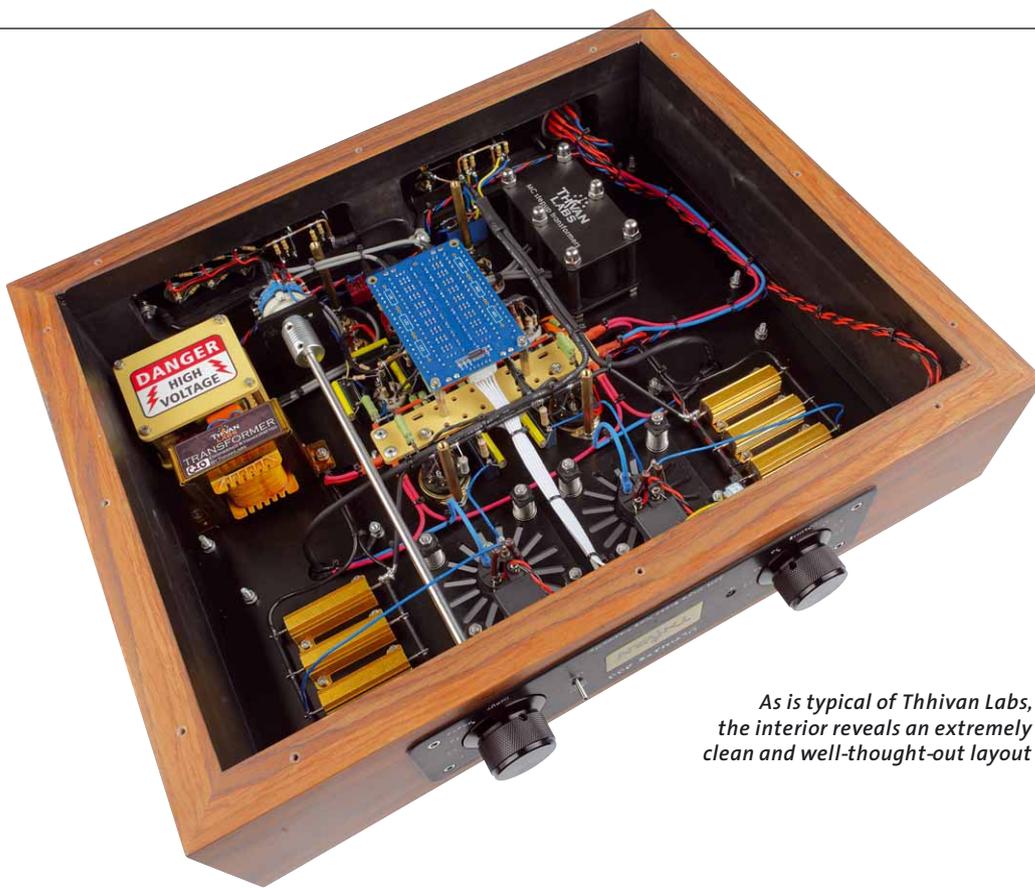
Here, however, the triode queen gets to take on a less demanding job and “merely” drive RCA and XLR outputs.

At first glance, the Ultimate 300 is instantly recognizable as a Thivan Labs device. The open design, in which tubes and transformers are prominently displayed atop the top panel, is just as much a hallmark of the manufacturer as the exotic wood-veneered frame that forms the base of the unit. Of course, such an elaborate device doesn't come cheap. In Germany, the unit would cost around 16,000 euros, if it were available here.

For that price, however, you get a true gem of an analog control center for ambitious hi-fi systems. I could very well imagine pairing it with the outrageous three-part integrated amplifier Sun 833-X, for example. Externally, we're dealing with an absolutely impressive design, and the weight alone suggests that no expense was spared here: the amplifier section weighs in at 20 kilograms, and the power supply at 24 kilograms.



*Surprisingly, the solid-state amplifier section is the lighter of the two components in the Ultimate 300B*



*As is typical of Thivan Labs, the interior reveals an extremely clean and well-thought-out layout*

### Power Supply

Let's start with the power supply unit of the Ultimate 300B. Inside the unit, there are nine inductors – some transformers, some choke coils. Thivan Labs consistently relies on filtering all operating voltages with coils and capacitors, which is why there is also a significant collection of large-capacity ca-

pacitors. The whole unit is powered on via a rather unspectacular small toggle switch on the front panel – there are no other controls on the power supply.

The connection to the amplifier section is provided by a multi-pin cable equipped with large, high-quality connectors, which,

### Teammates

#### Turntable:

- Thales Elegance / Simplicity II

#### Cartridge:

- Lyra Atlas Lambda
- DS Audio DS 003

#### Power amplifier:

- Yamaha P-2200

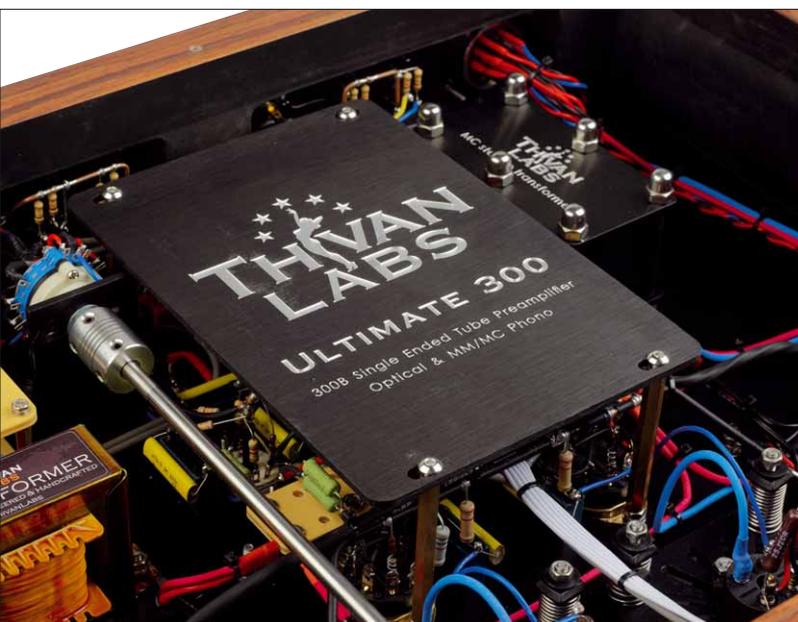
#### Speakers:

- JBL L300

### Competitors

#### Phono preamplifier:

- DIY tube technology

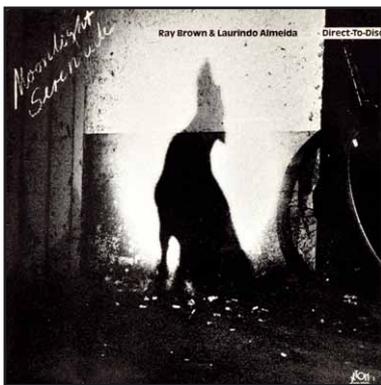


*This metal plate serves as a shield for the volume control*



*The MC transformers are also isolated from external influences*

Ray Brown Laurindo Almeida – Moonlight Serenade



What we played

**Ray Brown Laurindo Almeida**  
Moonlight Serenade

**Ten Years After**  
Recorded Live

**Archive**  
You all look the same to me

**Chick Corea**  
Return To Forever



A total of nine inductors provide the operating voltages in the power supply



The Vietnamese take the power connector seriously. Here's an XLR plug for size comparison



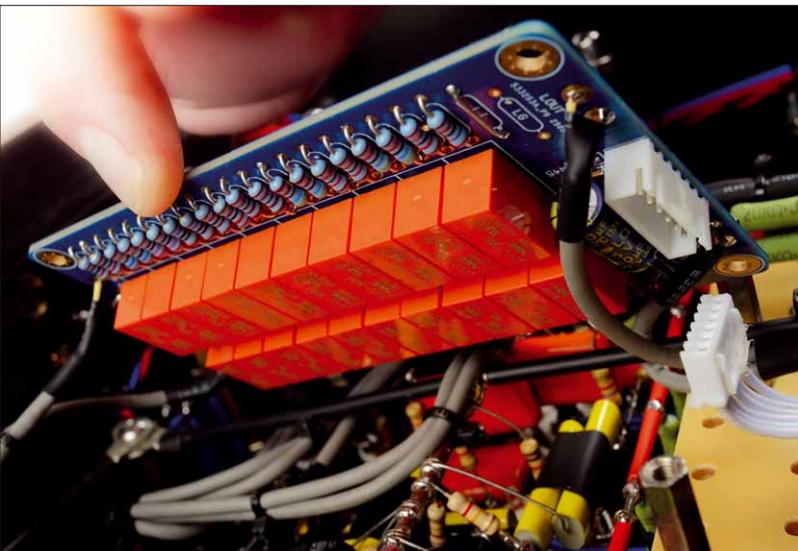
The heavy-duty connection cable between the power supply and the amplifier is also available with angled plugs

given their diameter, would also serve well as a fire hose. The lockable connectors, in particular, make a very high-quality impression. Reportedly, the cable is also available with angled connectors upon request, which should result in significantly less space required behind the devices.

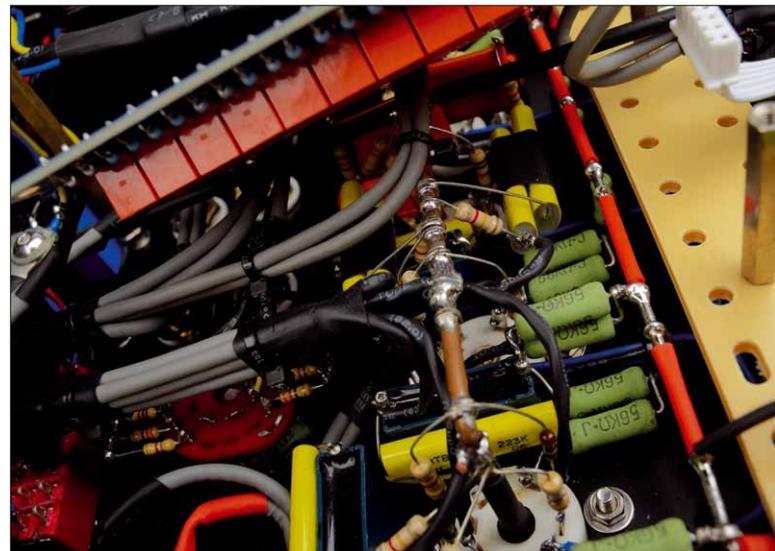
**Amplifier Section**

The amplifier section is already a very impressive unit even without the external power supply and would pass as an ambitious integrated amplifier elsewhere. Not so at Thivan Labs: Here, two 300B tubes (our review sample features excellent PS Vane models) and two US 6SN7 dual-triode tubes are solely dedicated to boosting high-level

signals to drive a power amplifier. This can be connected via either RCA or XLR cables; the balanced outputs are – of course – generated using transformers. On the high-level input side, there are three RCA and one XLR input; the corresponding jacks are located on the rear panel. The fifth position of the input selector switch on the front right is simply labeled “Phono”; when selected, the connection panel located on the top rear of the unit comes into play. Here, as mentioned earlier, you can connect MM, MC, and DS Audio cartridges. All connections are unbalanced; the MC input features a rotary switch for input impedance. You can choose from 22, 47, 150, 220, and 470 ohms, which should work for the vast majority of cartridges. The somewhat unusual values can be explained by the fact that the MC preamplification is implemented using transformers. MM cartridges are terminated with the standard 47 kΩ; for DS Audio optical cartridges, no adjustment is needed. The actual phono preamplification is handled by three dual-triode tubes of the 12AX7 and 12AU7 types. MM and MC cartridges are driven through the same amplifier stage, while optical cartridges are driven separately. What is missing: switchable high-pass filters, which have sometimes



*A total of 20 relays are responsible for precise volume control*



*The professional build quality really shines through under the volume control board*

proven useful with DS Audio cartridges that pick up signals down to DC voltage. However, there is a standard filter that does the job to full satisfaction.

The unit's volume control also deserves a mention: it operates using a number of relays, each of which switches appropriate fixed resistors into the signal path. This works well in principle, but isn't yet fully refined in every detail: particularly in the range of maximum attenuation, the level tends to jump slightly, and you can't turn the volume all the way down to mute. Certainly something that can be fixed with a software update. It would also be nice to have some kind of volume indicator; without it, given the extremely fine resolution of the volume control, you have no idea where on the scale you currently are. Remote control? It's included in the package. Naturally, it's a solid metal design.

### Sound

The Ultimate 300B definitely has its own sonic signature, which is noticeable across all the different inputs. This is likely due to the fact that the exotic 300B high-current tubes are responsible for its sound.

Even when driving the unit via an external phono preamp, the powerful, sonorous upper bass range stands out, complemented by a bright, intense mid-high frequency reproduction. The Ultimate 300B clearly

does not try to hide its tube character, but proudly displays it – which I consider entirely appropriate for such an extreme piece of equipment.

In keeping with the exclusivity of the device, I immediately put the MC input to the test with an extreme cartridge: the Lyra Atlas Lambda. Also a very expressive component, the top-of-the-line MC felt right at home on the Ultimate 300B. Ray Brown and Laurindo Almeida played together with tremendous power and focus; their

*Where there are coils, capacitors are never far behind: the power supply is also generously equipped with them*





*This is the connection and control panel for the phono section*

“Moonlight Serenade” sounded exceptionally intense and demanding. Ten Years After made even more sweat drip from the listeners’ brows with their live classic “Recorded Live”; the fervor with which the musicians perform here is almost too much of a good thing for the listener.

And what happens when you play the same thing through the electro-optical input on a DS Audio DS003? In terms of heat and impact – almost the same. However, the green-glowing cartridge doesn’t quite match the finesse and intensity of the Lyra. That’s understandable; after all, it costs only a quarter of the price of the Lyra MC. In return, the DS Audio plays to its strengths here with exceptionally precise spatial imaging and treats the listener to an almost holographic clarity. As a result, both phono stages of the Ultimate 300B can boast of delivering absolutely convincing results and celebrating analog playback with power and warmth – throughout all four seasons.

*The Ultimate 300B also offers plenty of connection options*

*Holger Barske*

## Measurements

### Lab commentary

*The Ultimate 300B also demonstrates its qualities in the test lab. At high-gain operation (775 mV at input and output), we measured a signal-to-noise ratio of 95.4 dB(A), a channel separation of 90 dB(A), and a total harmonic distortion of 0.43 percent. The frequency response extends beyond the 30-kHz mark; a slight peak of about one decibel distorts the picture at around 50 Hz. Channel balance is very good (less than 0.3 dB deviation), and the maximum undistorted output voltage at a 100-k $\Omega$  load is approximately 7 volts.*

*In MM mode (5 mV at the input, 1 V at the output), we measured a signal-to-noise ratio of 61.7 dB(A), channel separation of 58.9 dB(A), and distortion of 0.23 percent. In MC mode (0.5 mV at the input, 1 V at the output), the values change to 54.1 dB(A), 53.9 dB(A), and 0.46 percent. The device consumes approximately 128 watts of power, and does so constantly.*

*Incidentally, the “Gain” switch on the front panel doesn’t do much: it changes the device’s gain by about three decibels, which is negligible.*





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## Pure Tube Technology

Among the now quite numerous equalizers for DS Audio electro-optical pick-ups, one type is very rare: tube-based units. The Japanese manufacturer has now changed that with the TB-100 model.



## Very Exclusive

Following the success of the direct-drive TD 124 DD turntable, Thorens is stepping up its game: With the TD 124 DD Exclusive model, the manufacturer presents a luxury version featuring a brand-new 12-inch tonearm.



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