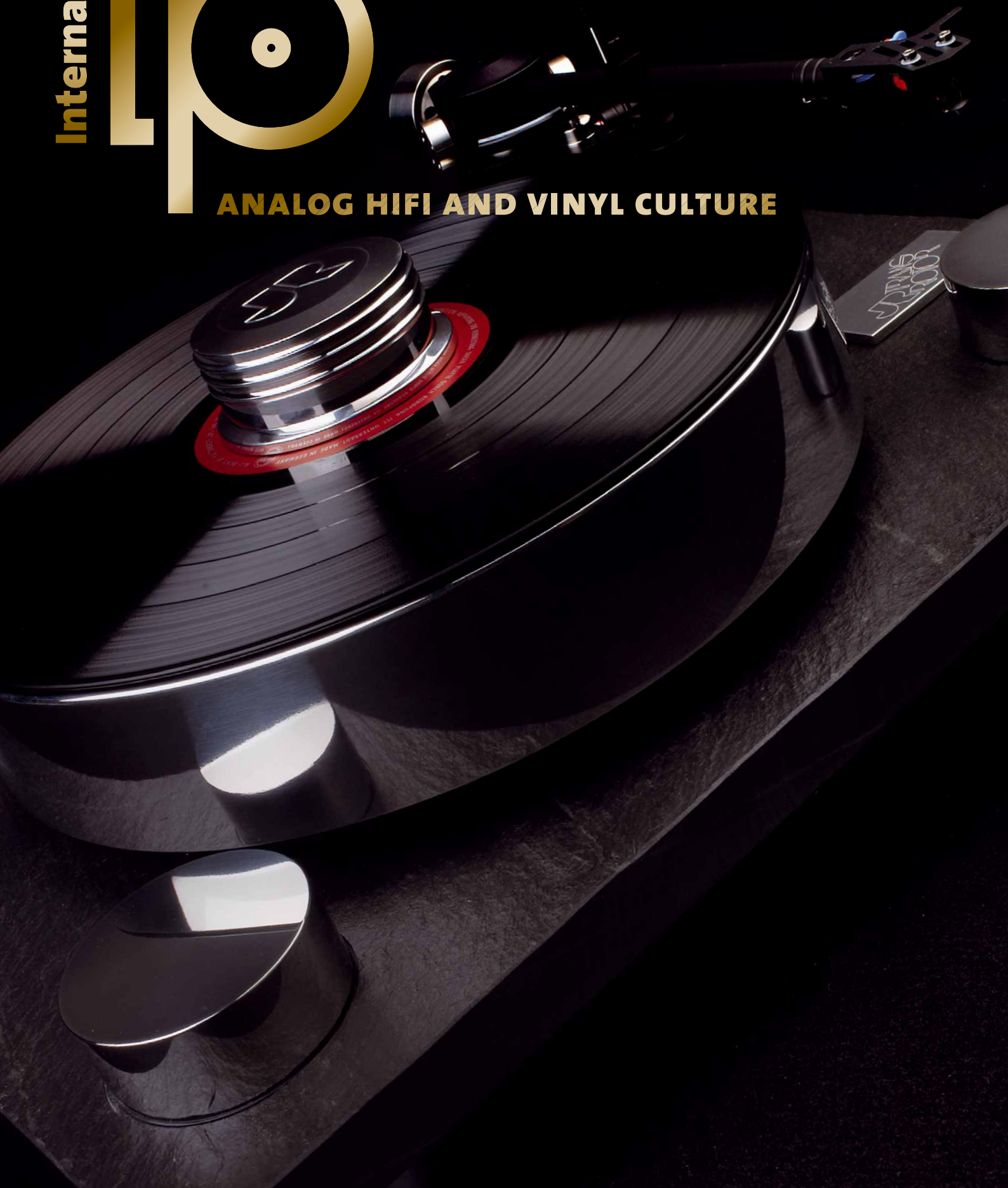


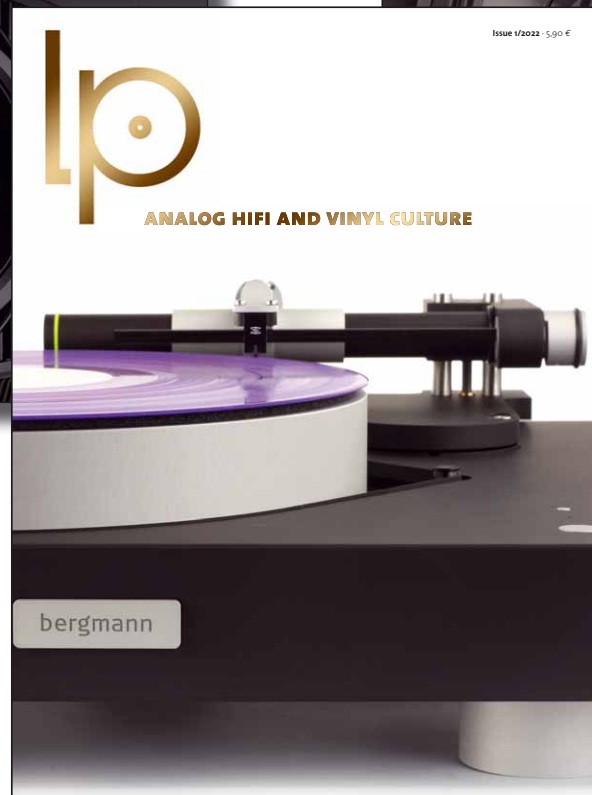
# International LP

Issue 3/2025 · 5,90 €

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## THE STATE OF AFFAIRS

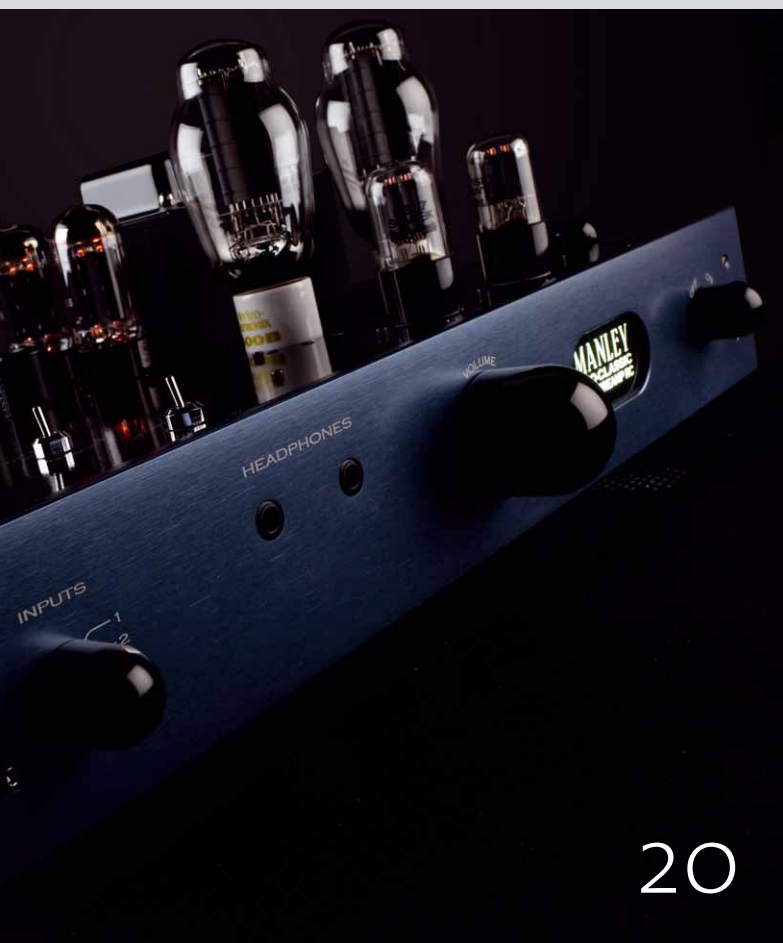
Admittedly, it seems a little forced to focus on the status of “listening to music” given the problematic state of the world. But perhaps that is exactly what we should be doing more of, to allow ourselves at least the occasional respite from forms of human folly that are considered impossible in this day and age. In this context, it is striking that there is a noticeable shift away from “modern” forms of media consumption. In other words, streaming is becoming uncool. This applies not only to music consumption, but to all forms of “rented” digital content such as films, television, computer games, and other types of software that are rented via a subscription model. Since it has become clear that the relevant providers are able to remove content from their offerings at any time without notice, there has been a jolt through the world of Spotify & Co.: content that users have paid for is suddenly no longer available to them. In the case of market leader Spotify, there is the additional factor that its playlists

are increasingly being filled with “AI slop,” i.e., AI-generated content that may not be bad in itself, but was generated exclusively by algorithms and for which the provider therefore does not have to pay any artists. Streaming customers, however, are paying for it.

In light of these developments, it is not surprising that there is a trend toward physical media, toward things that do not suddenly disappear, especially among the younger generation. A record, CD, DVD, or whatever else cannot be “removed” once it is in the owner’s collection. So even if we cursed the many boxes of heavy records during our last move, we should be happy about the permanence of our music.

*Holger Barske, Editor in Chief*









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# THE ART OF CONNECTING

In my hi-fi universe, there are two occasions when to deal intensively with four-digit numbers; with the type designations of old JBL drivers and the connectors and terminals of the Essen-based manufacturer WBT. Today, we'll take a look at the latter.





*Der 0120 ist der Schrägwinkel-Cinchstecker von WBT*

### Number games

Before we dive headfirst into discussing the new WBT products, we must first send our congratulations to Essen: WBT is currently celebrating its 40th anniversary. Just think about that for a moment: for 40 years, the company has been manufacturing nothing but RCA and speaker connectors, and with great success. No other company in the audio world has managed to be so successful with such a specialized portfolio. Even though company founder and namesake Wolfgang B. Thörner passed away last fall, there is no sign of lethargy in Essen-Kettwig: the improvement of signal transport for small and not-so-small signals, which has been continuously advanced over decades, remains at the top of the agenda.



*Compared to the classic 0110, the 0120 is noticeably more protruding*

### nextgen history

One of Wolfgang Thörner's passion projects has now finally reached the series production stage after years of delay. Namely, the RCA connector with the type designation 0120. To explain this, we need to go back a little: Quite a few years ago, WBT shook up the small signal connector landscape with its famous „nextgen“ models. For the first time, RCA connectors were available with a drastically reduced metal content compared to all competing products, which prevented eddy current losses. A clever collet mechanism allowed for rock-solid mounting under all conditions, and the design also enabled signal transmission with a defined characteristic impedance for the first time. The combination of injection-molded plastic parts and metal components using stamping/bending technology is still groundbreaking today, and the competition has yet to catch up in this regard.

However, after many years of using next-gen RCA connectors, it has become apparent that the technology is not without its pitfalls, especially when used frequently: the collet mechanism is difficult to operate in confined spaces, and even after years of use, it is still unclear which way round is actually „tight.“ The end result, at least in the rough and tumble of everyday editorial life, is that the screw sleeves on many next-gen connectors simply disappear at some point. No matter, the thing still works. And some people claim that it sounds better „without“ them anyway.

### The new RCA plug

This problem has long been a thorn in WBT's side, but the solution is called 0120. WBT calls it an „angled RCA plug,“ and it took a long time to get this gem ready for series production. I remember various conversations with Wolfgang Thörner in which he told me, „We're finally ready with the 0120,“ but that turned out not to be entirely true. As always, the devil is in the details, and that takes time. Now the 0120 is finally available for purchase. At \$53 and \$76 for the copper and silver versions, respectively, it's not exactly cheap, but it now works perfectly.

*The 0707 pole terminal is also a genuine next-gen product. The metal content has been reduced to the absolute minimum*



And what are the differences compared to the classic nextgen connector? For one thing, the cable is no longer inserted from the rear in the traditional way, but at an angle from below. WBT promoted this many years ago with its speaker connectors, and the idea is sound on both sides: in an age of heavy and rigid cables, the angled connection significantly reduces the leverage forces on the plugs and sockets. Broken solder joints in RCA sockets are a common cause of failure in hi-fi equipment. In ad-

dition, the aluminum screw sleeve is no longer available. It has been replaced by a clamping mechanism that is locked onto the „inlet nozzle“ by means of a lever: flip the lever up to insert the plug; flip the lever down to connect the plug securely to the jack. This works very well in practice, but requires more space than conventional RCA plugs. To install a cable, you have to disassemble the 0120, and it's easy to overlook the clamp on the top at first. The cable is connected by soldering, and cable jackets with a maximum diameter of nine millimeters fit into the housing. The plug still works according to the nextgen principle, as can be easily seen from the narrow contact tab



*The 0120 is locked in place using a lever*

# OTTA

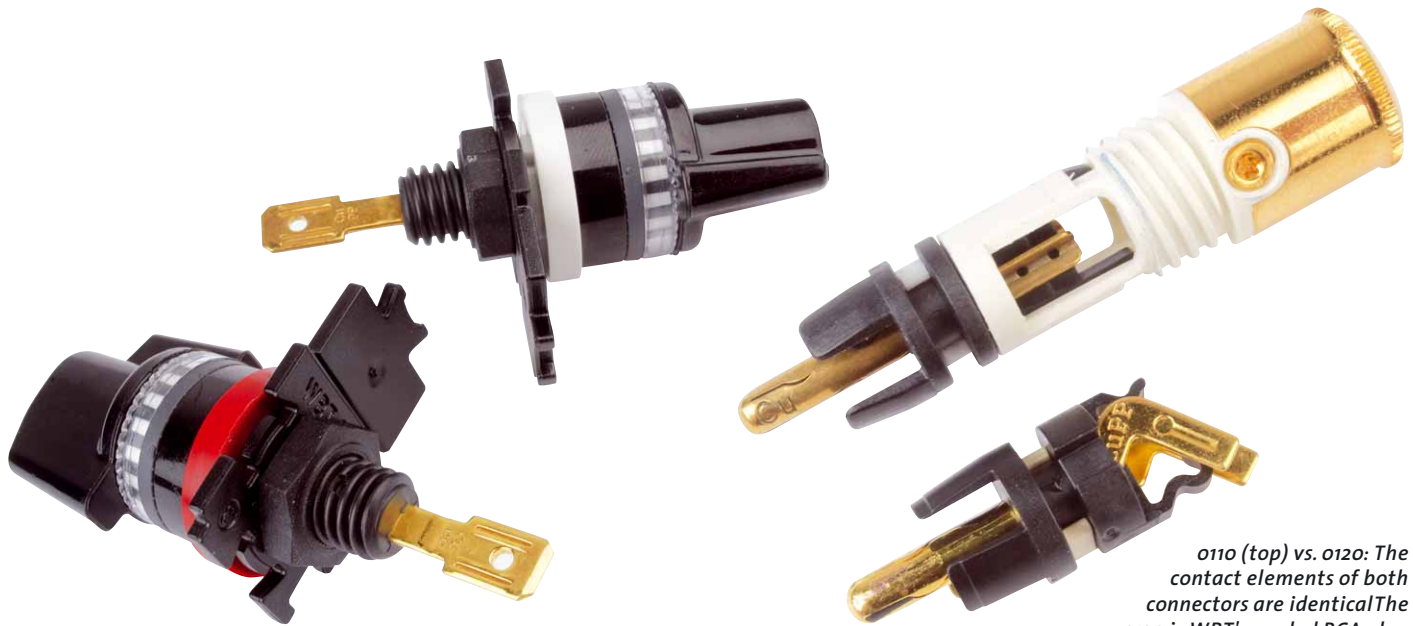


**NEW** Finally, here is our newest MC pickup cartridge, the MANDOLIN by OTTA. The OTTA philosophy – magic in the midrange. The midrange is the basis for natural reproduction; this is where emotions emerge, the foundation of the sound, paired with natural highs and transparency. This is our pursuit of emotional sound.

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**Döppers Esch 7**  
**D-48531 Nordhorn**  
**Phone +49 59217884927**  
**info@tcg-gmbh.de**







0110 (top) vs. 0120: The contact elements of both connectors are identical. The 0120 is WBT's angled RCA plug.

WBT offers a range of mounting aids for its pole terminals all kinds of mounting aids, which are more interesting for commercial users

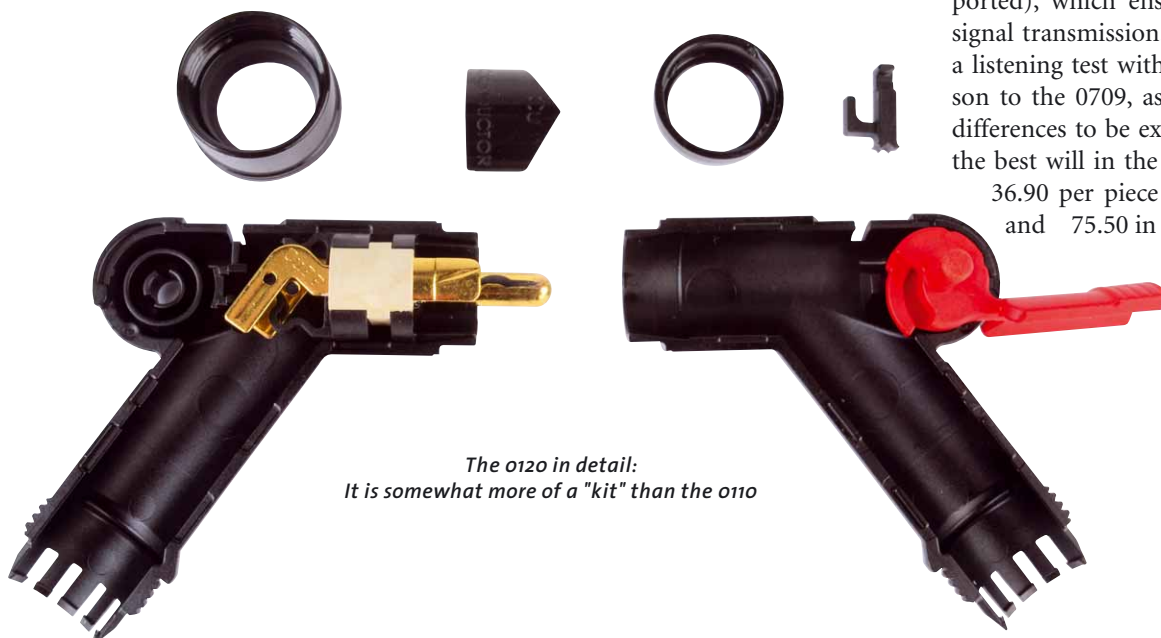
for the ground connection on the front of the plug. Since the entire plug housing is now made of very high-quality plastic, there are no longer any reservations about the aluminum screw sleeve. And I couldn't resist soldering two sets of cables with 0120 and the „old“ 0110 and listening to the difference. And yes, there are differences: the 0120 version seems a little cleaner and more transparent, perhaps slightly slimmer. It's not much, but with a little concentration it's noticeable.

### The 0707 speaker terminal

The second new product from WBT concerns the speaker sector: with the 0707 model, a new pole terminal is going into

series production. It is a variant of the well-known 0703 model, the only difference being the „control element“: The 0703 has a roughly ribbed round handle, while the new 0707 has a toggle-shaped knob. In theory, this makes it easier to achieve higher tightening torques, but in practice this is hardly significant: even a 0703 can be tightened more than enough without any problems. Due to its 27-millimeter-wide toggle, the 0707 requires slightly more distance from the „neighboring terminal“ than the 0703, which must be taken into account during installation. Of course, this is also a genuine next-gen product. As with the 0120, the metal parts are coated with gold using the PVD process (we reported), which ensures noticeably better signal transmission. I didn't bother doing a listening test with the 0707 in comparison to the 0709, as there are no acoustic differences to be expected here, even with the best will in the world. The 0707 costs 36.90 per piece in the copper version and 75.50 in the silver version.

Holger Barske



The 0120 in detail: It is somewhat more of a "kit" than the 0110

## WBT 0120 / 0707



- Prices
- 0120 CU / AG
- 0707 CU / AG
- Distribution
- Phone
- Internet

53 / 76 Euro  
 36.90 / 75.50 Euro  
 WBT GmbH, Essen  
 +49 2054 875520  
 wbt.de

lp

WBT  
0120 / 0707

International 3/25

» Even after 40 years, WBT still manages to bring new aspects to audio signal connectors. The new 0707 pole terminal is a welcome variation on the theme, while the 0120 RCA plug is a real step forward, especially for frequent users.







# ROUGH-SPLIT

A turntable from Bergisch Gladbach? Always a pleasure. The city of 111,000 inhabitants in the Bergisches Land region has developed into a kind of metropolis for everything that spins records.





*The Bellini impresses with its clear and simple design*

**I**n the beginning was Transrotor. Back in 1971, when trained agricultural machinery mechanic Jochen Räke founded his now world-famous manufacturing company on the outskirts of Cologne. His son Dirk Räke now runs the company, but „Papa Räke“ is still very much involved and

a constant source of inspiration. I recently had a long conversation with him at the High End show in Munich and found him to be a very contented 84-year-old man. The company is running smoothly, and the whole team is one big happy family. Envidable.



*Not cheap, but a great pleasure: the Transrotor Bellini TMD Slate with cover and luxury power supply*

In addition to the extremely remarkable new models designed by in-house engineer Lars Hornung (who has also been with the team for what feels like an eternity), the backbone of the Transrotor product family consists of less spectacular but lovingly crafted classic devices that have been developed to perfection with great attention to detail. The „Bellini“ model is undoubtedly one such device. It is positioned in the more down-to-earth corner of the product hierarchy and is therefore still within reach of people who have to earn their living with regular work.

### The Bellini

The Bellini is as classic a turntable as possible. It is based on a rectangular base plate that supports the platter bearing and tonearm. The drive motor of the belt-driven device is located separately in a recess at the rear left to ensure maximum decoupling from the device. The consistent separation between the drive and the turntable is undoubtedly a luxury, because on the

one hand the motor runs extremely quietly and on the other hand, there is hardly any noticeable noise transmission into the turntable frame, which in this case is made of one of the most uncompromising materials available, namely slate. Thanks to its very special layered structure, the material absorbs much better than practically any other stone, and its high density (at around 2.8 grams per cubic centimeter, it is higher than that of aluminum) does the rest. Transrotor relies on a „rough-split“ surface, which means that the structure of the base plate is created when a large block is broken into plates of the desired thickness and not by subsequent processing. Råkes sources its slate from the Sauerland region from loudspeaker manufacturer Fischer & Fischer; the quality of the material found in the local quarry is almost unique in the world in terms of homogeneity. And so every rim of a Bellini slate is always a snapshot of processes that took place millions of years ago in the earth's interior.

## Teammates

### Phono preamp:

- **Clearaudio Balance Reference**
- **DS Audio DS-E3**

### Cartridges:

- **Transrotor Figaro**
- **DS Audio DS-E3**

### Integrated amplifier:

- **Soulnote A-3**

### Loudspeaker:

- **Klang + Ton Nada**

## Competitors

### Turntable:

- **Transrotor Massimo Nero / TRA Studio 12"**

*The Transrotor Figaro is a high-resolution and thoroughly convincing MC cartridge*







## What we played

**Transrotor**  
**Favorites**

**John Coltrane Qunintett**  
**Ballads**

**Kungens Män**  
**Bränna Tid**

**Wishbone Ash**  
**Coat Of Arms**

*The hood hinges are  
a fine construction,  
offering a range of  
adjustment options*



## Drive and platter

Transrotor combines this unique material in the company's signature style with components made of finely polished aluminum. This starts with the three extremely sensitive height-adjustable feet, which are used to level the device. The base is of great importance here, with the only decoupling provided by O-rings inserted into the feet. The platter rests on a heavy aluminum turntable, at the center of which is Transrotor's famous „TMD“ bearing block. This is a two-part, magnetically coupled and decoupled construction that, on the one hand, ensures a force-fit connection between the drive belt and the turntable, but on the other hand offers a certain degree of decoupling to compensate for any unwanted vibrations from the belt drive. An acrylic mat is embedded in the top of the platter, which provides contact with the record. Experiments with additional platter mats are permitted, but not absolutely necessary; the design has proven itself over many years and does not require any additional tuning measures.



*The motor disappears  
under an aluminum cover*

The drive is powered by a round belt. The manufacturer attaches particular importance to its seamless production; indeed, no one wants to risk the concentricity of such a sophisticated drive concept being compromised by adhesive-induced hardening at any point on the drive belt.

The power comes from a synchronous motor built into a solid aluminum box. It rotates relatively quickly and therefore works with a small motor pulley. This is now hidden under an aluminum cover, so that almost nothing of the complete drive construction is visible – which undoubtedly benefits the classic and simple appearance of the device.

The „Konstant M1 Reference“ motor control system ensures that the motor is controlled in a manner befitting its status. In this system, the two motor phases are generated electronically separately from each other, and their frequency can of course be finely adjusted. On the one hand, this eliminates the need to shift gears when changing speeds and, on the other hand, allows for occasional readjustment of the speed in case of belt wear. It is not possible to build a belt drive in a more consistent manner, which is why Transrotor has been doing it this way for many years.

## Tone arm

There are options for the tonearm configuration of the machine. Our test unit came with the smaller of the two in-house arms, the nine-inch version of the TRA Studio. Its twelve-inch variant has been doing its job on the Massimo Nero for years, which has become an indispensable piece of equipment in our listening room. If you are looking for an unpretentious, medium-weight tonearm that can be easily combined with a variety of cartridges, the TRA Studio is the one to choose. The classic gimbal-mounted arm features a straight aluminum tube, a rotating headshell for azimuth adjustment, and a finely adjustable magnetic anti-skating system. There is also a height adjustment feature, and the arm can be locked in place with two grub screws in the base, which provides more stability than the single screw commonly used. The counterweight is multi-part; if the thick cylindrical stainless steel cylinder is not enough, additional weights can be screwed on behind it. This makes it easy to balance even heavy cartridges.



*The studio tonearm can be equipped with several counterweights*

## Cartridge

Cartridge? That was also included in our package. Transrotor equipped the TRA Studio with the „Figaro“ model. This is also an old acquaintance and is manufactured exclusively for the Bergisch Gladbach-based company by Goldring in England. It is a classic low-output MC with a special line-contact diamond, and the body is made of magnesium. In combination with the turntable, the cartridge is available for a subsidized price of € 2,240, and it would be difficult to find anything significantly better for that price.

A word about the cover included in the scope of delivery: the thick-walled and immaculately manufactured lid is probably the most uncompromising solution I have ever seen for this problem. This is not least due to the clever, adjustable hinges, which allow the lid to be adjusted for a perfectly flat fit. Don't need it? No problem, the whole thing can be removed in just a few simple steps.

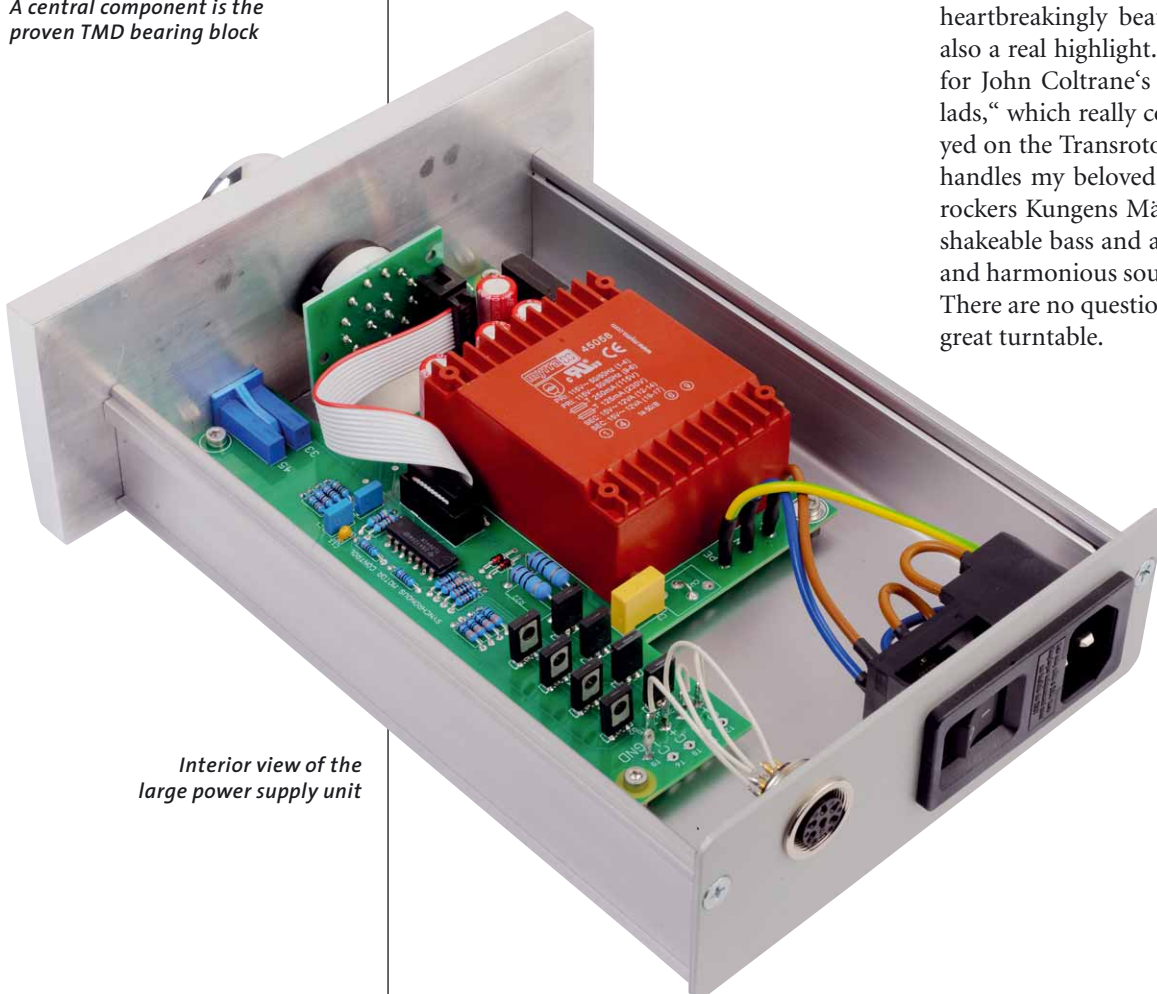
*The heavy aluminum plate has a ribbed pattern on its underside a ribbed pattern on its underside to prevent resonance*







*A central component is the proven TMD bearing block*



*Interior view of the large power supply unit*

## Sound

And yes, we listened to the Bellini TMD Slate without the cover—we didn't want to risk any potential interference from the large membrane. The device immediately impressed us with its extremely relaxed and unshakeable performance—admittedly, I would have been surprised if it had been any other way. In direct comparison to the Massimo Nero, it seems a little more „laid back“ and a touch warmer. The differences are not great, and I would classify them as a matter of taste. The perfect timing of the combination and its ability to bring even the smallest musical nuances to the fore make the Slate Bellini appear to be an extremely confident and mature turntable. I once again took great pleasure in listening to the excellent Transrotor sampler „Favorites,“ which showcases the capabilities of the turntable in a very impressive way. The finely chiseled reproduction of John Scofield's „Do Like Eddie“ was particularly impressive, and Fiona Grond's heartbreakingly beautiful „Lamento“ was also a real highlight. The same can be said for John Coltrane's dreamlike work „Ballads,“ which really comes to life when played on the Transrotor. The Bellini Schiefer handles my beloved Swedish atmospheric rockers Kungens Män with an earthy, unshakeable bass and a wonderfully cohesive and harmonious sound.

There are no questions left unanswered – a great turntable.

*Holger Barske*



## Transrotor Bellini TMD Schiefer



· Package price	13,650 Euro
· Distribution	Räke HiFi, Bergisch Gladbach
· Phone	+2202 31046
· Internet	<a href="http://www.transrotor.de">www.transrotor.de</a>
· Warranty	2 years
· Dimensions (W x H x D)	460 x 120 x 360 mm
· Weight	approx. 31 kg

**lp** Transrotor  
Bellini TMD  
Schiefer/  
TRA Studio 9"/  
Figaro

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» The combination of proven technology and an unshakeable slate base ensures a wonderfully relaxed, profound, and delicate musical experience—an all-round wonderful machine.

# TOP OF THE RANGE

Hardly any other tube enjoys such a mystical reputation in audiophile circles as the legendary 300B triode. And there's nothing wrong with that, if you use the old lady correctly. Which, in this case, has been done in a most convincing manner.









*Even if you don't want to hide the delightful tube configuration, there is also a cover grille for the Neo Classic 300B*

### A very special preamplifier

It's actually quite simple and is already covered exhaustively in the first paragraph of the product description: „Impedances not too low and power requirements not too high.“ Under these conditions, a 300B can work wonders. The easiest way to achieve these conditions is to relieve it of heavy work, i.e., not to assign it the task of driving loudspeakers. I know, I know: some

of the most famous power amplifiers of all time work with the 300B and enjoy a thunderous reputation; however, this only works if the speakers play along: a favorable impedance curve is just as essential as crisp efficiency, otherwise you won't get that great feeling when listening to music.

EveAnna Manley, CEO and designer at California-based Manley Laboratories, is well aware of this, of course. In fact, over the years, the company has repeatedly built low-power amplifiers with the 300B that enjoy an excellent reputation. In this case, however, we are talking about a line preamplifier with headphone connections, which EveAnna candidly describes as the most esoteric product in her portfolio.

This is understandable given that the company generates a large part of its sales with studio technology equipment, where the focus is on things other than mystical sound ideals. However, I fondly remember my past encounters with devices from this company, where I had to fight the urge to buy them – especially the wonderful EL84 mono „Mahi“ amplifiers, which I really liked at the time.



*Three toggle switches are needed to set the output configuration*

## Presentation

In many ways, the Neo-Classic 300B RC is just as unique a product as the small monos. Visually blessed with at least as much individuality as all Manley products, this very special preamplifier qualifies as the centerpiece of any hi-fi system. The design is very technical, with the sheet steel housing and gray-blue aluminum front serving as the „foundation“ for all the goodies mounted on top. First, there is a pair of the eponymous 300B output tubes. Manley supplies the device with impeccable and reasonably priced Electro Harmonix tubes; needless to say, this opens up an endless playground for tube rollers.

## Tubes and more

Behind the two large tubes is the substantial power transformer that supplies the whole thing with power. The two output tubes – like everything else in this device, they also run in true single-ended mode – are each controlled by a 6SL7GT double triode. This American classic is often used in this position, and Manley relies on Sovtek types.

That pretty much covers the signal processing; the rest of the tubes are used for power supply. Here, too, the classic recipe was followed, with one rectifier tube (5AR4) and even one control tube (OD3) for high voltage installed per channel. I am quite sure that this arrangement is significantly responsible for the special sound character of the device.

## Teammates

### Turntables:

- Transrotor Belline TMD Schiefer / TRA Studio / Figaro

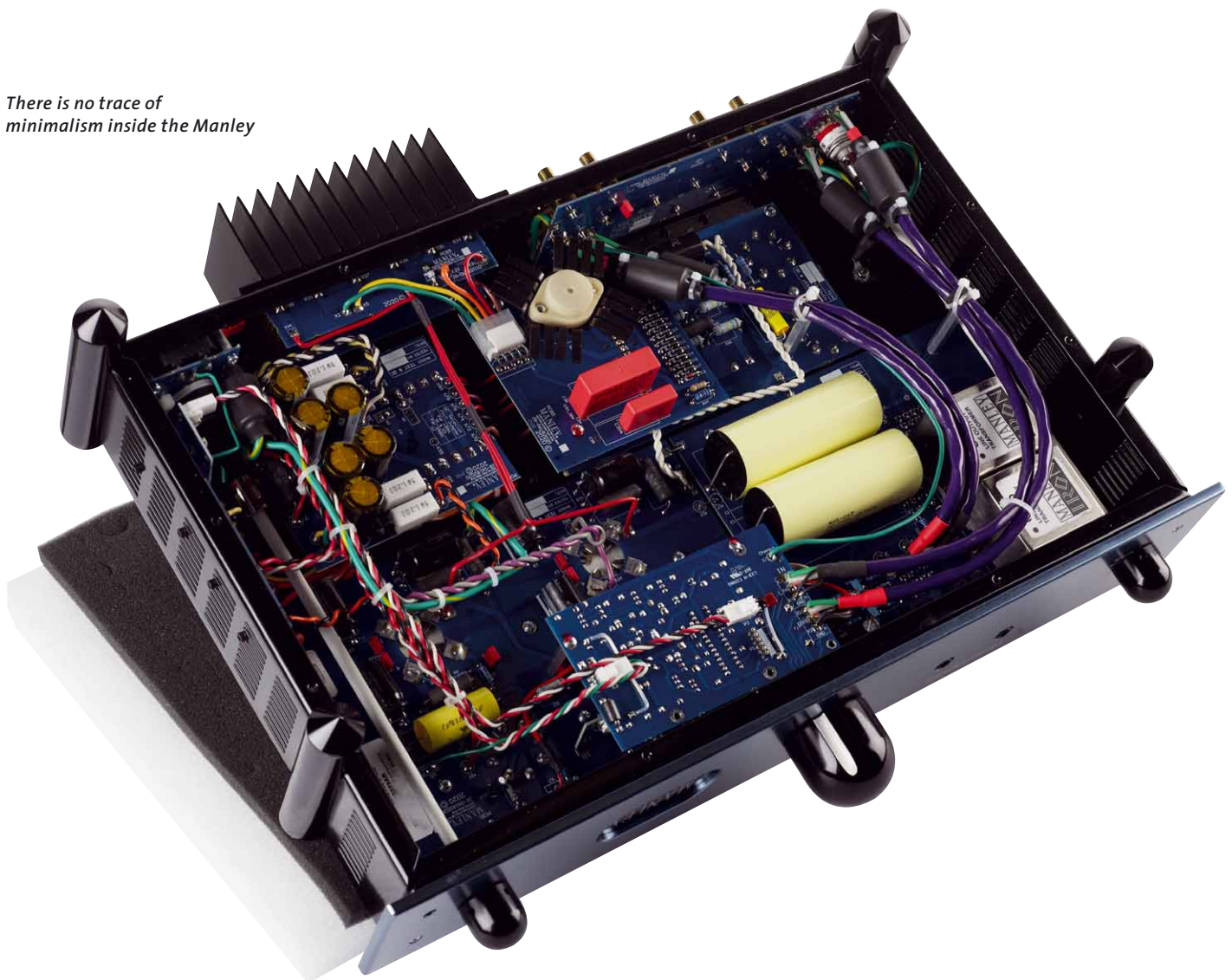
### Power amplifier:

- Yamaha P-2200

### Loudspeaker:

- Klang + Ton Nada
- GGNTKT M1

*There is no trace of minimalism inside the Manley*







## What we played

**Chick Corea**  
Return To Forever

**Fleetwood Mac**  
Rumours

**The Spacelords**  
On Stage

**Led Zeppelin**  
How The West Was Won

In terms of operation, the device is, at least in part, very classic. On the left is a rotary switch that switches between five (unbalanced, of course) inputs, in the center is the volume control (behind which an Alps motor potentiometer does its job), and on the right is the hard power switch, which is designed as a rotary switch.

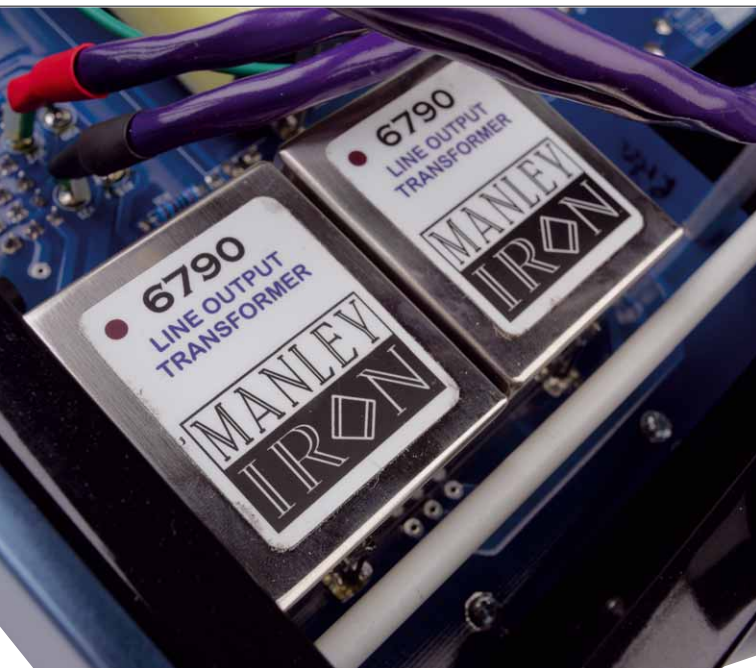
## Headphone operation

Halfway to the left, there are two 6.3-millimeter headphone jacks, which require a little explanation: they are controlled by two self-wound transformers, whose transmission ratio can be selected via a toggle switch on the top of the device: The 30-400 ohm setting is for low-impedance headphones, 300-4000 ohms for high-impedance headphones. There are two more switches related to the transformer: One switches the transformers completely out of the signal path, which is the recommended mode for preamplifier operation, as this provides „pure tube“ sound at the line outputs. The third switch also selects between headphone and line operation; this is a bit redundant, but is due to the output-side circuitry.

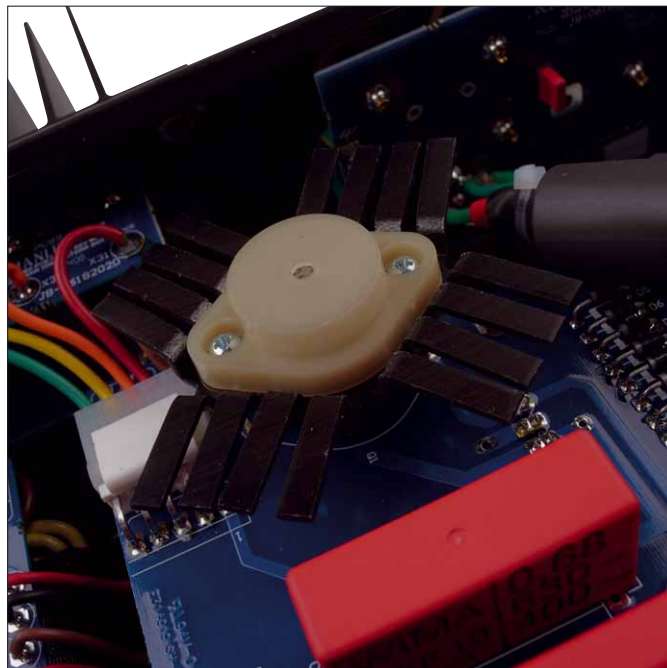
## Design

The Neo Classic 300B does not operate completely without negative feedback, but with a very moderate 8.5 decibels of overall negative feedback. This ensures greater linearity, lower distortion, and compensates for minor inequalities in the tubes. Completely eliminating negative feedback is certainly not an option for Manley, as they are too deeply rooted in studio technology. In addition, the negative feedback ensures a healthy 100 ohm output impedance at the line output, so that you can drive a few meters of cable with it. On the input side, the device is designed with a fairly high impedance of 100 kilohms, so it does not represent a significant load for the connected sources.

Underneath the bottom plate, a rather lavish construction comes to light. The abundant technology is spread across a large number of circuit boards. The electronic stabilization of the heating voltage is striking, which is rather unusual when using a 300B. The signal for the line outputs is decoupled via two large REL caps, which are foil capacitors that are very popular with American manufacturers. The two trans-



These are the transformers that serve the headphone outputs



This is where the heating voltage for the tubes is regulated



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# KLANG+TON

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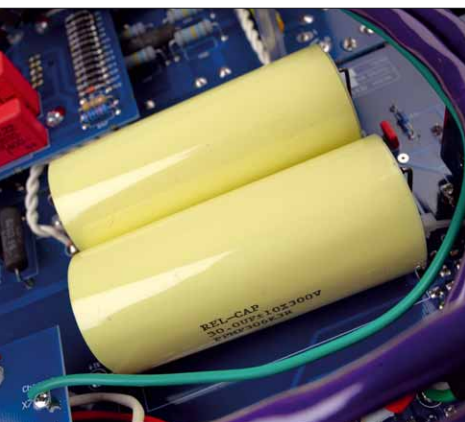
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since  
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· Exquisite near-field monitor with AMT tweeter p.18

**High and mighty**  
· DIY reference made in Germany p.26

monitor sneaker



Thick REL caps are used to decouple the signal

formers for the headphone outputs are homemade. Incidentally, the output stage delivers a whopping one watt of power, which is more than enough for the intended applications here – the 300B is a pretty powerful tube in this environment. The motor potentiometer is, of course, remote-controlled, and the slightly quirky-looking transmitter fits in perfectly with the style of this magnificent preamplifier.

## Sound

A device like this is not something you switch on and immediately experience its full sonic potential. The Neo Classic 300B needs about fifteen minutes to work its magic.

Are you looking for a mercilessly detailed precision preamplifier that illuminates every corner of the room? Then I have a few good tips for you, but the Manley is not one of them. It is pure pleasure. Its sound shines, breathes, and dances. Even when connected to a down-to-earth power amplifier like my old Yamaha P-2200, it unfolds a dynamic and radiance that I have rarely experienced. It gets even more extreme: when connected to the GGNTKT M1 active speakers, pretty much the opposite of what you would normally connect to such a preamplifier, the Manley swung into particularly high spirits. The „boom“ in the upper bass range was immense, but

## Measurements

### Lab commentary

*The frequency response of the Manley reveals the influence of the headphone transformers on the output: with the transformers switched on, the output voltage drops slightly, which is why they should definitely be switched off in line mode. Linearity and channel balance well above the 20 kHz mark are excellent in any case. At 775 millivolts at input and output, the signal-to-noise ratio is an excellent 89.3 decibels (A), channel separation is 67.9 decibels (A), and the distortion factor is 0.09 percent. The maximum output voltage is around 6.5 volts, which should be more than sufficient for all applications. The power consumption is a constant 112 watts.*

not unpleasant; it sounded confident, not exaggerated. The opening of Chick Corea's 1972 masterpiece „Return To Forever“ perhaps most impressively demonstrates what this preamplifier is capable of: the intro sounds buttery smooth, incredibly supple, and emphatically rhythm-oriented. The vocals and flute are perfectly integrated, but not carved out with surgical precision. The tonality is what one most readily associates with the term „analog.“ And yes, I had to put on Fleetwood Mac's indestructible classic „Rumours“ again. With „Dreams,“ I need just the first note from John McVie's bass to know whether a setup works in the bass range. Here, it works great: the low end sounds sonorous, powerful, and convincing, and Mick Fleetwood's bass drum follows suit. The Manley's ability to connect sounds and let the big picture flow is extraordinary, making it yet another Manley device that I am extremely reluctant to part with.

It's quite cramped at the back




Holger Barske

## Manley Neo Classic 300B RC



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

10,000 Euro  
input Audio Gettorf  
+49 4346 600601  
[www.inputaudio.de](http://www.inputaudio.de)  
2 years  
483 x 190 x 330 mm  
approx. 15 kg



Manley Neo  
Classic 300B RC

International 3/25

» Manley's large preamplifier is pure tube:  
impressive, fluid, warm, rhythmically  
perfect – melodious sound at the highest  
level.



# THE SPICE OF BREVITY

The British manufacturer Trilogy Audio is largely unknown in our region. It's time to finally raise awareness of this fine electronics brand.



TRILOGY 921









*Unassuming and elegant: the 921 is also visually appealing*

### Background

It really cannot be said that Trilogy Audio draws attention to itself with a loud and boisterous presence – quite the contrary: founded in 1990 by an enterprising engineer named Nic Poulson, the company is something of an eternal insider tip among British manufacturers of fine audio equipment. Internationally, it is represented in only 13 countries; apart from the USA, Canada, and Singapore, it serves exclusively European markets. This is quite remarkable for a company that has been in business for 35 years.

Incidentally, Nic Poulson is also the founder of Isotek, a company that is now very successful in the field of power conditioning, but with which he no longer has anything to do. However, he has remained faithful to the topic of power supply and runs another company called „Isol-8 Technologies,“ which is active in this sector. At Trilogy, however, the focus is exclusively on amplifiers in their various forms.

### The 921 integrated amplifier

To start with, we will take a look at the smallest integrated amplifier in the range, with the simple model designation „921.“ Weighing 11 kilograms and priced from € 8,000, this is also the manufacturer's latest product. The manufacturer does not reveal anywhere on its website where on the island it is actually based.

Everything about the 921 is understated. The moderate dimensions, the simple design language, the minimalist operating concept. And: it is a pure integrated amplifier, meaning there are no upgrade options for phono operation or even streaming clients. There are five unbalanced high-level inputs, a pair of speaker outputs – that's it.

### Appearance

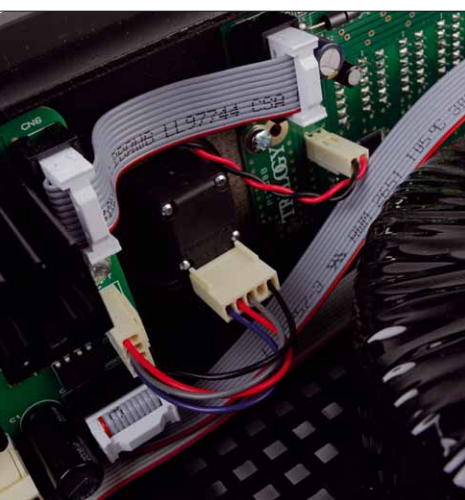
The first thing you notice about the dark 921 is its case surface. Although made from a considerable amount of aluminum, the device feels „soft.“ I'm not sure whether the manufacturer achieved this with a soft-touch coating or whether it's due to a special surface structure of the black metal sheets – in any case, it feels high-quality and good. Alternatively, there is also a silver-colored version that is 500 euros cheaper, but you have to forego the haptic experience. The absence of any heat sinks also contributes to the „cuddly“ impression. This function is performed by the side panels of the device, which also provide a decent amount of thermal mass thanks to a material thickness of around ten millimeters. Nevertheless, the side panels of the 921 get quite hot during operation. The nearly 25 watts of heat output from each power amplifier stage has to be dissipated, and you can feel that quite clearly here.

### Concept

At first glance, the 921 is a completely normal integrated amplifier, but at second glance, it is not: its circuit design differs fundamentally from what other manufacturers understand by this term. Trilogy has completely abandoned the classic separation into preamplifier and power amplifier sections and entrusts the entire voltage amplification of the device to a single amplifier stage. This has potential sonic advantages, but poses special challenges for the quality of this circuit component. All that is then needed is a powerful impedance converter that provides the speaker-compatible voltage with the necessary low impedance. The signal path of such a device cannot be kept any shorter.



*The power amplifier plug-in board contains the complete voltage amplification*



*The richly running level control does not operate a potentiometer, of course, but an impulse generator*



The interior of the device is pleasantly tidy, partly for this reason. A generously dimensioned toroidal transformer resides in the center, with the two amplifier modules housed to its left and right. These are arranged on two levels: the voltage amplification is located on plug-in boards, while the current amplification is located on the boards below. This is also where the only chips involved in signal processing are hidden in the device, although they serve exclusively as servos to eliminate any DC components in the signal. If you suspect that this is why there are no coupling capacitors in the 921, you are correct. The speaker connections serve two classic bipolar power transistors from the Toshiba range per channel, which easily deliver around 70 watts of output power per channel at eight ohms. However, the 921 does not particularly appreciate low-impedance speakers: at four ohms, only about 40 watts of the 70 watts remain if the distortion is not to drift into unpleasant regions. A consequence of the extremely „short“ circuit design? Most likely.

Otherwise, there is a decent amount of filter capacity – even stamped with „Trilogy“ – directly on site, i.e., at the output transistors, and a decidedly conservative design:

everything is discrete, no SMD components. The only exception is the volume control, which is implemented with a chip from Analog Devices and is located on the input selection board, where the relays for selecting one of the five inputs are also located.

### Operation and features

All in all, a nice mix of clean construction and original circuit design. We push the heavy, rear-damped housing cover back into its guide groove with confidence.

In this context, visible screws are only found on the rear panel of the completely enclosed housing, which ensures a very attractive and coherent overall appearance. I'm a fan of red LED displays, and the Trilogy has already won me over with its display, especially since it's particularly easy to read. Speaking of the 921's operation, it works a little differently than usual. Computer-savvy people will probably have no problem with the presence of an „Esc(ape)“ and an „Ent(er)“ key, while everyone else will quickly get used to confirming entries with Ent and returning to the usual level display with Esc. The buttons on the device are small, solid-looking stainless steel domes. Alternatively, you can use the sleek metal

## Teammates

### Turntable:

- Transrotor Massimo Nero / Studio 12“

### Cartridges:

- Transrotor Figaro

### Phono preamp:

- Thivan Labs P20

### Loudspeaker:

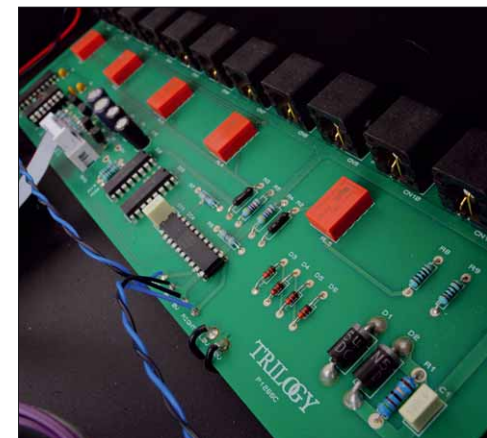
- Klang + Ton Nada
- Hartzsch Concert
- Epos ES-14N

## Competitors

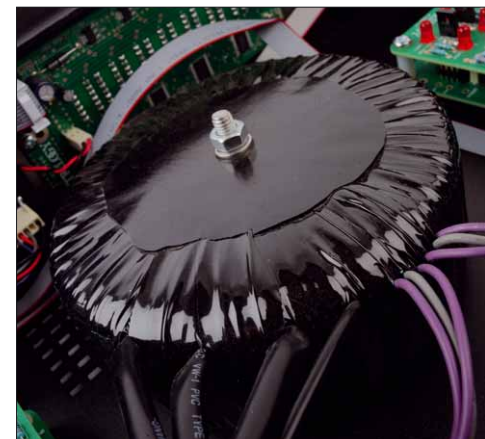
### Integrated amplifier:

- Soulnote A-3
- Exposure 3510 Integrated

*The interior of the Trilogy is pleasantly tidy*



*The long chip in the center of the image is the volume control*



*The power supply is definitely powerful enough*



## What we played

**My Sleeping Karma**  
Mela Ananda

**Steely Dan**  
Gaucho

**Chick Corea**  
Return To Forever

**Fleetwood Mac**  
Rumours

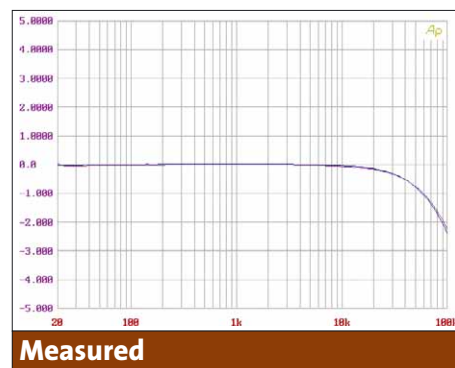


Sockets securely screwed to the back panel – plus point!

One speaker connection on the far left, one on the far right – that's where they belong

remote control that comes with the device. This also allows you to display features such as the heat sink temperature on both sides and the date and time. The „Phase“ button does not seem to have any function here. If you venture a little deeper into the menu structure, you can assign names to the inputs and program the „volume off-sets“ so that all connected devices operate at the same volume. Speaking of volume: the electronic potentiometer is completely silent and, with 100 steps of resolution, offers more than enough fine resolution.

The listening test was easy to set up: an amplifier like this literally cries out to be combined with our tried-and-tested house reference „Nada“: even 14 years after its completion, the closed 20-liter box equipped with fine Scan Speak material is still a real big name in loudspeakers. So it came as no surprise that the amplifier and speakers were audibly compatible and performed brilliantly. Once again, the wonderful live album „Mela Ananda“ by the Aschaffenburg-based instrumentalists My Sleeping Karma was on the turntable of our trusty workhorse record player. When it comes to exploring atmospheric depth, this album is my go-to choice. And damn – the Trilogy delivered: it let me sink infinitely deep into the hypnotic guitar worlds, took me to far-away places and sounded completely untechnical and fluid. It fans out the action, literally embraces the listener, and distributes the action opulently and with the utmost transparency. I had the faint hope that the deliberately short circuit concept would be transparent for such things, but I hadn't expected this exuberant abundance of emotion. Tonally, the 921 is a little on the warm side – just enough to sound pleasant and not artificial. It has a wonderfully sonorous upper bass with po-



### Measurement technology comment

Everything is fine in terms of linearity: the frequency response of the 921 extends well beyond the 100 kHz mark, with both channels performing identically. The signal-to-noise ratio at one watt is 81 dB(A) at eight ohms and 80 dB(A) at four ohms. In terms of channel separation, the 921 achieves an impressive 76.4 and 73.5 decibels (A), respectively, with distortion at 0.39 and 0.45 percent, respectively. In terms of output power, the device achieves 72.5 watts at eight ohms and 45 watts at four ohms with an upper limit of 0.7 percent distortion. This is unusual for a semiconductor amplifier, but it's no big deal – you just need to take this into account when choosing speakers. With a no-load current consumption of 46.3 watts, the device operates in class A mode, at least in the low power range.

wer and character. Listen to Steely Dan's excellent „Gaucho“ remaster from 2023 with this amp: rich, round, gripping, an all-round pleasure. The drums on „Time Out Of Mind“? Top notch. Just like the delicate unraveling of the choir passages. „Third World Man“? Donald Fagen's voice is nailed in the center, and when the choir kicks in, the room opens up in a most impressive way. An all-around coherent and wonderful sound – great!

Holger Barske





## Trilogy Audio Systems 921



· Price	8,500 Euro
· Distribution	EAR Audio, Bredstedt
· Phone	+49 4671 4047599
· Internet	<a href="http://www.eaudio.de">www.eaudio.de</a>
· Warranty	2 years
· Dimensions (W x H x D)	465 x 106 x 312 mm
· Weight	approx. 11 kg



Trilogy Audio  
Systems 921

International 3/25

» The Trilogy is an integrated amplifier designed with a keen eye and a feel for the essentials. Its soulful, warm, and detailed sound character is absolutely convincing.









Silvercore

# DREAM INSTEAD OF DELUSION

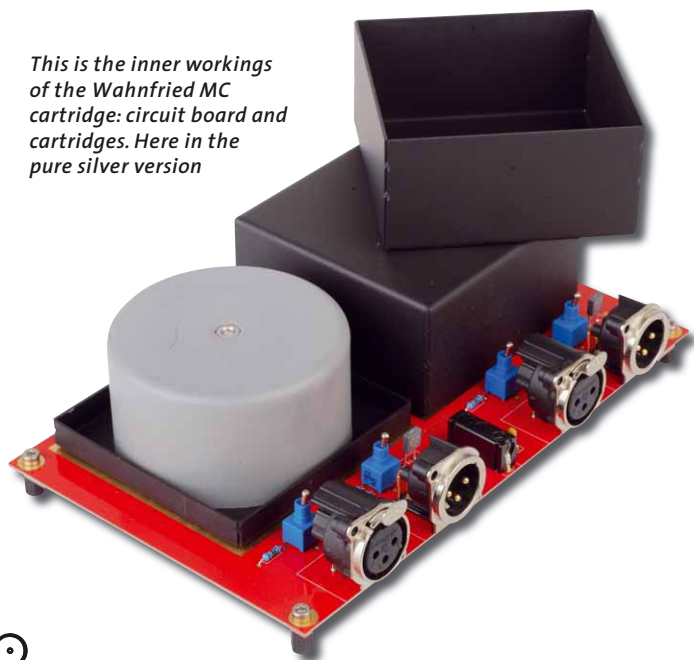
The Leipzig-based company Silvercore has a loyal fan base. Initially, transformers were its core business, but in the it has since shifted its focus to amplifiers. Will that change again change again with the Wahnfried MC transformer?



*This is what the finished product looks like in the classic Silvercore look. Here is the version with silver-plated copper wire*

With the MC-Pro transformer, Mr. Silvercore Christof Kraus had a top-of-the-line model in his range for many years. But now he has put a new one in front of the soldering iron. But why does he call it Wahnfried? Kraus is Franconian, even though he has lived in Leipzig for a long time, and so the sacred mountain of the Wagnerians never felt far away. In other words, it was obvious to serve the Wagner cosmos, and Wahnfried was just right for him – Kraus also likes to provoke people. Incidentally, Wagner said of his dream home: „Here, where my delusions found peace – Wahnfried – this house is named after me.“ Let's hope that Kraus has found peace with this transformer. It's possible.

*This is the inner workings of the Wahnfried MC cartridge: circuit board and cartridges. Here in the pure silver version*



## Summit thoughts

Why did Christof Kraus develop a new top model in the first place? Well, our industry is constantly evolving, and what was at the top a year ago may soon no longer be. In other words, other manufacturers also make beautiful transformers, and standing still would be a step backwards. So Kraus thought long and hard about what he could improve on his top model. His attention was focused primarily on the so-called winding space. Winding space? No, we're not talking about babies. The winding space is the physical design of the actual transformer. Often, the cores and thus also the winding conditions are so small that there is no longer any space between the wires; worse still, they even cross each other. Of course, this is not acceptable at the level of such a transformer. We are dealing here with very fine, very quiet signals and also with magnetism. It is therefore not only desirable that the wires do not cross, but lie neatly next to each other; it is necessary in order to prevent interference. The primary and secondary windings of the Wahnfried are implemented in a single layer in different winding spaces and therefore build up virtually no capacitance. This allows Kraus to use thick wire, which lowers the internal resistance and is also desirable. The wires are wound in parallel and on the same side – which is anything but standard. The parallel or series-connected windings enable a transmission ratio of 1:10 or 1:20.

## Core ideas

Kraus says: „The theoretically ideal transformer has as little winding resistance as possible and a core material that exhibits minimal magnetic losses.“ That is why he has long since stopped using cores other than those made of nanocrystalline materials, and not the small ones at that. „Nano,“ as it is also called for simplicity's sake, is an iron-based composite material with varying proportions of silicon, baron, niobium, or copper. Kraus does not use just any cores, but those he considers to be the best and also the most expensive—from Germany. For the Wahnfried, they were configured to be significantly larger than before.



## A balancing act

There are two versions of the Wahnfried: one is wound with silver-plated copper wire, the other with high-purity silver. For the former, Kraus uses what is known as MilSpecWire. This is a silver-plated copper wire that is specified for aerospace applications and must meet the highest requirements. Unlike cheap wires of this type, it is not coated with a thin layer of silver applied chemically and a base metal intermediate layer, which results in a rough, nervous sound. No, this wire, also known as Cu AG 20, has a silver content of up to 20%, which is applied thermally. As a result, it has a much broader transmission response than comparable cables. Kraus discovered this material many years ago when he visited the aviation museum in Fürstenfeldbruck near Munich. The technology enthusiast inspected a space shuttle on display there. His eye was caught by a cable which, he was told, was specified for a frequency range of 10 Hz–100 kHz.

That was 20 years ago, and the rest is Silvercore history. He has his 4n pure silver cable manufactured. Pure silver is significantly more brittle than the cheap fine silver mixed with impure materials that is used in the textile and jewelry industries. The smaller the transformer core, the more difficult this cable is to wind and the more breakages there are. Machines are not suitable for this anyway; manual labor is required here. Fortunately, Kraus uses large cores for the Wahnfried, which makes the work easier. The configuration and price of pure silver, which has also risen significantly due to the war in Ukraine, account for the hefty price premium compared to the standard version.

## Shielding

At first glance, shielding seems to be a deeply sensible and important thing, and in principle it is. But if nothing gets in, nothing can get out either. In other words, MU metal shielding for a transformer is very useful for effectively preventing interference. However, if the MU metal is too close to the core, there may be a kind of rebound of interference from the transformer, which cannot escape to the outside. Kraus therefore uses iron, which is more permeable.

## General

When choosing a transformer, you usually need to be clear about which pickups you want to use, because transformers are usually wound with exactly one transformation ratio, which roughly determines whether you can use low- or high-impedance systems. You can fine-tune this on a smaller scale with adjustment resistors, which I find suboptimal. Or by switching between different transformation ratios. Silvercore expands the possibilities precisely for this reason; in the case of the Wahnfried, you can choose between 1:10 and 1:20. Many manufacturers offer this option, but how they implement it varies, which is beyond the scope of this article. If you don't like switches in the signal path and don't feel like unscrewing the cover to switch, Christof Kraus recommends buying two transformers. In my opinion, you can't hear the switch. Silvercore's claim that the Wahnfried MC cartridge can be used with an output voltage between 0.15 and 0.75  $\mu\text{V}$  and an internal resistance between 12 and 40 ohms does not quite match my experience. Cartridges such as my Koetsu Urushi Black with its 5 ohms can also be operated excellently.

## Teammates

### Turntable:

• Schröder TG

### Tone arm:

• Schröder CB Ebony

### Preamplifier:

• Air Tight ATC-1

### Integrated amplifier:

• Air Tight ATM-4

### Loudspeaker:

• De Vore Fidelity O/Baby

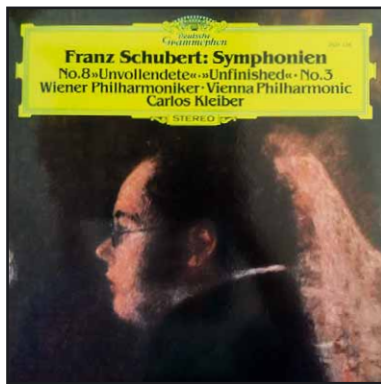
## Competitors

### Cartridge:

• Koetsu Urushi Black



*And here you can see the built-in circuit board with the switches on the back for 1:10 or 1:20 – the cover has to be removed for this*



## What we played

**Franz Schubert**  
Unvollendete / Carlos Kleiber

**Walt Dickerson**  
A Sense of Direction

**Johnny Cash**  
American Recordings Vol. III  
– Solitary Man

**Oscar Peterson**  
Live In Bremen 1961

**Talking Heads**  
Remain in Light

*Christof Kraus is absolutely humorless when it comes to connections: XLR or nothing*

## Practical experience and sound

As already indicated, the relationship between the transmission ratio of a transformer and the internal resistance of an MC cartridge are far more complex than one might think. I don't want to give any calculation examples, but suffice it to say that the difference in volume with my Koetsu Urushi Black at the 1:10 or 1:20 transmission ratio of the Wahnfried MC is very small. The differences in sound are not, and as expected, and also mathematically comprehensible, the sound locks in at 1:20. There are several resistors on the circuit board. One that stands out is a very high-quality specimen that costs a whopping 12 to purchase and is used for impedance matching. The others dissipate „HF“ in the input and/or output. Kraus „strongly“ recommends using symmetrical XLR cabling for the tonearm cable. This is not the case for me, so I have to use adapter cables. I would prefer XLR sockets on the turntable frame, as I find this one additional transition more acceptable than the rather heavy XLR plugs on the tonearm cable.

We received two versions – one built into the housing with Cu AG 20 and one wound with 4N silver cable as a built-in

circuit board. Both have a very confident basic sound, relaxed, closed with beautiful timbres. The difference between the two is clear. The „copper“ version perhaps sounds a little more intimate and slightly more compact. The silver version demands a little more attention from the listener, but also gives them more in return. The notes resonate for longer, and the silver version brings an extra dose of freshness, resolution, and timbre into play. As with silver-plated copper, only the finest pure silver has these qualities with its elegant, silky touch. If you don't compare the two versions, the „normal“ Wahnfried does a fantastic job, which is why I spent most of my time listening to it.

## Music

Walt Dickerson has become my favorite jazz vibraphonist. His way of playing the notes briefly with large felts and letting them resonate for a long time is unique, and I can hear exactly whether a component gets in the way or not. The Wahnfried opens the door wide. And behind the door stands, or rather sits, Johnny Cash, singing about his life at the end of his life. Thanks to the Wahnfried, I am in the room with Cash and producer Rick Rubin and am completely drawn into the music. For example, the organ on The Mercy Seat develops a presence that I have never experienced before. And if Cash's voice doesn't give you goosebumps, you don't need a Wahnfried anymore. The beauty of Franz Schubert's Unfinished Symphony finds its perfection in Carlos Kleiber's conducting. With the Wahnfried, you can hear timeless beauty in a performance that will never be repeated, but which we can experience at home anytime.

*Christian Bayer*



## Silvercore Wahnfried Series MC



- |                  |  |
|------------------|--|
| · Price per pair | 4,000 Euro (Copper version)<br>8,000 Euro (Silver version) |
| · Distribution   | Silvercore / Leipzig                                       |
| · Phone          | +49 177 9112571  |
| · Internet       | <a href="http://www.silvercore.de">www.silvercore.de</a>   |
| · Warranty       | 2 years  |
| · Weight         | approx. 2 kg   |

**lp** Silvercore  
Wahnfried  
Series MC

International 3/25

» Christof Kraus has always built excellent transformers. With the Wahnfried Series MC, he has crowned his work and secured himself a place in the transformer hall of fame on Wagner Hill.



# ONE FOR ALL

All-in-one devices are all the rage. It's no coincidence that this issue features a whole range of designs that can drastically reduce the number of devices in a hi-fi system. One of the most impressive examples of this type comes from Slovakia.









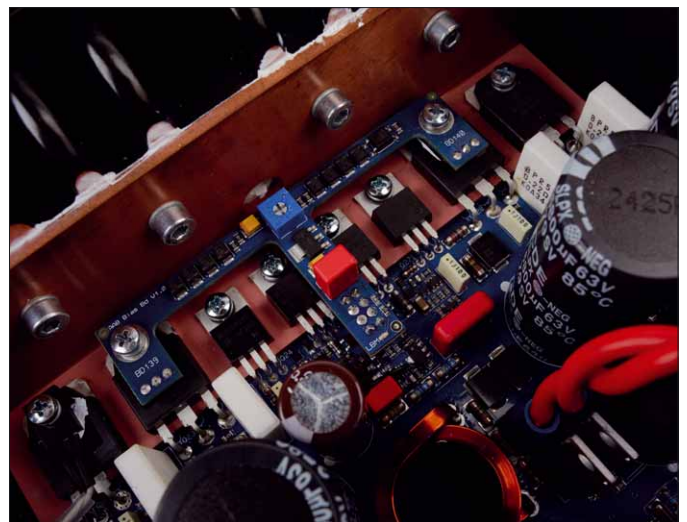
*Thanks to the new operating concept, there are no buttons or switches on the front of the device*

Yes, Canor again. This highly innovative company, based in Slovakia's second-largest city (Prešov), has been mixing tube and semiconductor technology for 30 years and always knows how to please with convincing results. I visited the company a good two years ago and was amazed at the sheer scale of the undertaking and the number of well-known manufacturers for whom it develops and manufactures pro-

ducts. Understandably, these manufacturers are not particularly interested in publicizing such collaborations, but that doesn't really matter to us at this point – Canor itself has so many interesting arrows in its quiver that we can focus exclusively on devices from this brand. A few impressions from my visit at that time can be found at the end of this article.



*Under the shielding cup: one of the two essential tubes*



*The powerful amplifier delivers an easy 200 watts of continuous power*

Our current object of desire is called „Virtus A3,“ costs around € 6,000, and is only a full amplifier at first glance. In fact, this 18-kilogram behemoth is practically a complete hi-fi system – apart from the speakers and various source devices.

Under the cover of the Virtus A3 is a powerful hybrid integrated amplifier, a high-performance D/A converter, and a phono preamplifier suitable for both MM and MC cartridges.

The manufacturer openly admits that this device was one of the most complex developments in the company's history, and when you take a look under the cover, it becomes clear why: the effort that went into it is extremely impressive – more on that later. First, let's take a look at the „weight“ of the Virtus A3, because it has a few surprises in store. We are already accustomed to Canor devices communicating with the user via easy-to-read yellow dot matrix displays, which is also the case with the A3. But that's not all. Whereas the center of the usual central rotary encoder has always featured an illuminated company logo, this model is the first to feature an integrated round color display, which is also (of course) touch-sensitive. Despite a multitude of functions, this allows for a very tidy front panel layout and retains the typical Canor look.

Want to turn it on? Just gently touch the round display. This immediately shows a tube, which is complemented by a surrounding „warm-up timer.“ A special gimmick: the symbolically represented tube cathode glows more and more as the warm-up time elapses. Completely superfluous, but very nicely done. And now, dear smartphone refusers, you have to be very brave: the input selection on the A3 is done by „swiping“ on this display. From left to right. Due to the limited size of the touch panel, this doesn't work quite as smoothly as on a modern smartphone, but it is still reliable. Of course, you can also swipe up and down: swiping down reveals an on/off symbol that you can use to put the device into standby mode. Swi-

ping up reveals a dimmer that can be used to change the brightness of both displays. But that's not all. If you swipe right again from here, you'll find a whole range of other settings. For example, you can select a „screensaver“ in the form of a stereo VU meter with pointers or – as in the past – the company logo. You can also configure inputs for home theater loop-through operation, roughly pre-level the inputs (plus three or six decibels), or completely exclude unused inputs from „scrolling.“ The integrated phono section proves to be pleasantly flexible. There are four different gains between 40 and 66 decibels, four capacitance values for MM operation (50 to 400 picofarads), and five impedances for MC operation (10, 50, and 100 ohms, 1 and 47 kilohms). That's something you can work with.

There are no other controls, but there are two headphone jacks: in addition to a classic 6.6-millimeter jack, there is a four-pin XLR socket for balanced connection, which is quite common for high-quality headphones these days.

## Teammates

### Turntable:

- **Transrotor Massimo Nero / Studio 12"**

### Cartridge:

- **Transrotor Figaro**

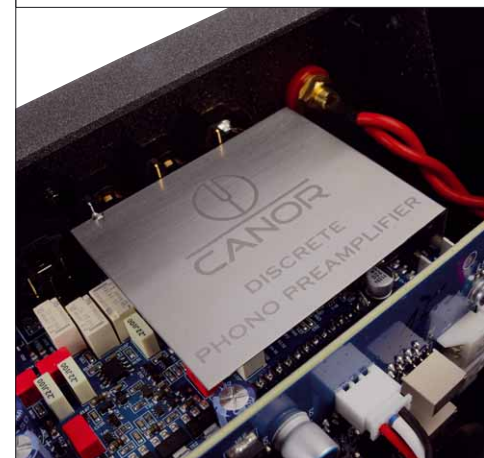
### Loudspeaker:

- **Perlisten A4t**

## Competitors

### Integrated amplifier:

- **D'Agostino Pendulum**



*Underneath the metal plate is a channel of the discretely constructed phono section*



*The Virtus A3 is a packed with high-tech features*





What we played

**Spacelords**  
Liquid Sun

**Townes Van Zandt**  
In Pain

**Nina Simone**  
My Baby Just Cares For Me

**Steely Dan**  
Pretzel Logic



*Very nice:  
The VU meter mode for the  
display in the rotary knob*

A glance at the rear reveals a considerable amount of connection diversity: digital connections can be made via USB-C, two coaxial, two optical, and one AES/EBU jack, which should be enough for all situations—apart from the lack of Bluetooth connectivity. For analog sources, there are two unbalanced and two balanced inputs in addition to the phono connection. Speakers can be connected via China pole terminals of mediocre quality, and we are pleased to see a balanced and an unbalanced preamp output.

### Technology

Underneath the insulated and sturdy aluminum cover is an extremely substantial construction. The first thing that catches

the eye is the unusual cooling concept: the two powerful power amplifiers cool their output transistors via a heat pipe system, in which liquid-filled pipes conduct the heat from the semiconductors to the highly effective heat sinks. If I hadn't happened to look under the device, I wouldn't have noticed during operation that there are two fans providing additional convection. The two power amplifier boards each feature one of Canor's well-known shielding cups, and underneath is what makes the amplifier a hybrid design: an E88CC double triode provides the desired level of tube technology. The thick ring-core power transformer is almost completely hidden under the protruding power supply board. The rear panel of the device features chan-

*Richly equipped:  
the rear of the device*



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The cooling concept uses heat pipes for heat dissipation

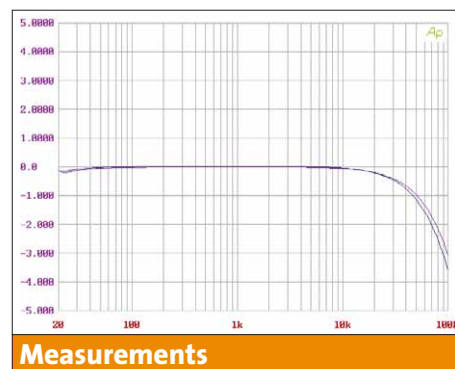
nel-separated input boards, which also house the discrete phono modules, which are shielded from prying eyes by protective plates. The volume control is also channel-separated and sensitive, using state-of-the-art chips, while the digital input side is served by two fine ESS9038 converter chips that can convert everything the digital world has to offer – here too in the finest dual mono configuration.

Phew. That's a lot, and I take my hat off to the designers for fitting all this technology into the certainly not small housing; not a single cubic centimeter of space has been wasted here. The measurement technology confirms the concept; we could not detect any mutual interference.

### Listening test

When it comes to speaker selection, the Virtus A3 offers a welcome degree of freedom. The powerful amplifier also tames transducers that like to be kept on a slightly shorter leash.

We opted for the brand new Perlisten A4t, which is currently being tested by our colleagues at HiFi Test and makes quite



### Lab commentary

There is also good news to report from the measurement lab regarding the Virtus A3. With 106 watts into eight ohms and 205 watts into four ohms, it proves to be a pleasingly powerful representative of its guild. The frequency response reveals channel equality and linearity up to 100 kilohertz, and the interference voltage and channel separation values are just as good (79.1/74.3 decibels(A) and 78.6/73.2 decibels(A) at one watt at eight/four ohms) as the distortion (0.07/ 0.11 percent). With an idle current consumption of 92.7 watts, the Canor is not exactly energy-efficient, but its power consumption remains within reasonable limits.

a powerful statement. The input side was easy: the Transrotor Figaro in the tried-and-tested Massimo Nero feels right at home at 100 ohms, and as usual, I opted for maximum amplification.

Yep. It can deliver. The three gentlemen from the „Spacelords“ prove this quite clearly with their 2016 masterpiece „Liquid Sun.“ It sounds rich, sonorous, energetic, and emphatic. It's wonderful to hear how meticulously the Canor unravels the deeds of the three performers. The album only has three tracks, but with this setup, they are a rewarding vacation trip into infinite expanses.

Pretty much the exact opposite is the documentation of Townes van Zandt's last European tour in 1994/95. „In Pain“ is a fascinating and harrowing collection of the great songwriter's later moments, and this combination allows us to share in the emotionality of the moment in a powerful way – top notch. Nina Simone demonstrates smoothness and grace, Steely Dan demonstrate a sense of rhythm at the highest level – quite astonishing for such an all-in-one device.

Holger Barske

## Canor Virtus A3



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

6,000 Euro  
IDC Klaassen, Lünen  
+49 231 9860285  
[www.canor-audio.de](http://www.canor-audio.de)  
2 years  
435 x 130 x 462 mm  
approx. 18 kg



» Canor's brand-new complete package impresses with a powerful and excellent-sounding amplifier section, plenty of functionality, and an original operating concept. One for everything!



# ON SITE

Finally, a few impressions from my visit to Canor Audio in spring 2023



*The man in the middle is John Westlake and is responsible for many developments at Canor*



*Canor builds its own enclosures, which results in an impressive metalworking department*



*Also in-house: EMW measurements for various certifications*





*SMD components? Canor has plenty of them, and the circuit boards are naturally also assembled in-house*



*It all started with tube testers, and they are still still a big topic at Canor*



*A darkened room helps with functional testing tube devices*



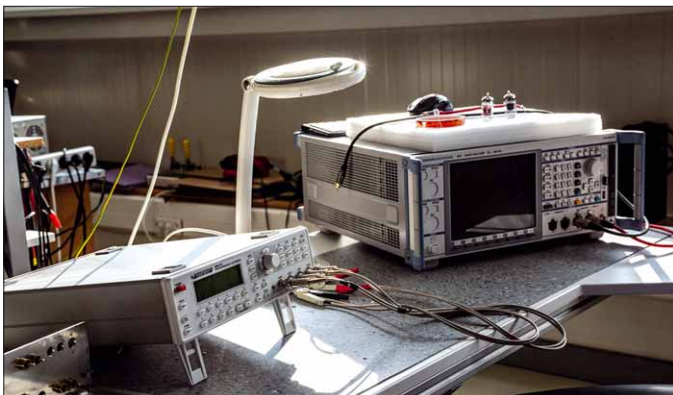
*Conventional components – i.e., those with wire connections – are assembled by hand*



*Canor amplifiers are assembled here*



*There is even an extensive electroplating facility for housing finishing on site*



*Measurement technology? Made in Germany and of the highest quality*



*The in-house listening room. Listening is done with Fink Team speakers*



# COUNTER-MOVEMENT

It's no secret that we live in increasingly hectic times, with the pace of almost every aspect of daily life accelerating. So it's nice when people want to slow down and turn back the clock a little.



## Introduction

Nowadays, analog music reproduction doesn't just have to compete with its peers; it also has to define itself as the antithesis to the no longer revolutionary digital world. In many cases, the analog sound ideal has actually adapted to the possibilities and preferences of the digital world, which has had and continues to have clearly noticeable consequences for pickup development: the trend toward ever-increasing resolution and directness continues unabated. This undoubtedly has its appeal and corresponds to the modern interpretation of „correct“ music reproduction, but it is not necessarily everyone's cup of tea. And that's why there is now a pickup brand called OTTA. The abbreviation stands for „Over The Top Analog“ and is based on the efforts of two men to create a counter-balance to „higher, faster, further“ in the pickup segment.

One of the two is Eckhard Derks, owner of TCG GmbH, a long-established hi-fi distributor in Germany. Among other things, he is responsible for the distribution of Audes, Thivan Labs, and Skyanalog. The other is American Philip O'Hanlon, who runs the „On A Higher Note“ distribution company in the USA. In the medium term, the OTTA portfolio will comprise three pickup models, all of which are MCs with a special sound orientation. At the moment, only the smallest model, „Manolin,“ is available, which is available from us for € 2,000 and which we will be discussing here.

In the medium term, however, the OTTA label will not only offer cartridges, but also headshells and MC transformers.

*Here you can see the ruby stylus with the elliptical diamond*

## Teammates

### Turntable:

• Yamaha GT-750 / Reed 3p

### Phono preamp:

• Clearaudio Balance Reference

### Integrated amplifier:

• Trilogy 921

### Loudspeaker:

• Klang + Ton Nada

## Competitors

### Cartridge:

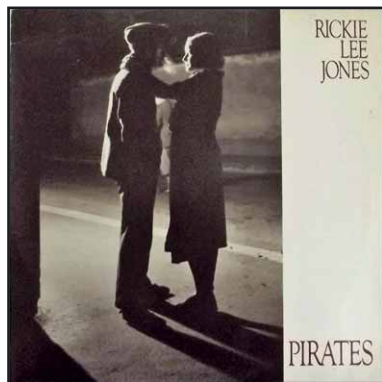
• Denon DL-103  
• Skyanalog G-1



*Exemplary: The stylus holder is installed perfectly straight*







## What we played

**Rickie Lee Jones**

**Pirates**

**Anouar Brahem**

**Blue Maquams**

**Led Zeppelin**

**I**

**LA4**

**Just Friends**



*Geometrically, the OTTA is based on the Denon DL-103, including the connection pins*



*The housing is made of very old red sandalwood*

## The Mandolin

All OTTA MCs are mechanically based on the indestructible Denon DL-103, which means that all important dimensions correspond to those of the Japanese classic. For example, the connection pins are the same size and arranged in the same way. This can be a great advantage in certain installation situations originally designed for the Denon. However, OTTA has improved on one aspect of the classic model: the connection pins are properly color-coded.

However, one bad habit of Japanese pickups has been retained: mounting with through bolts and separate nuts. I apologize, but there is no longer any reasonable reason to force users to fiddle around with this. Cutting two M2.6 threads into a pickup housing should be a well-mastered technique and makes life much easier for the user. But perhaps bizarre details like this are part of the principle behind such a pickup.

## Housing

The Mandolin is housed in a finely CNC-milled red sandalwood housing, which in reality is a deep dark brown, almost black. According to legend, there is a very old, very slowly dried tree trunk that has to serve this purpose. The generator is housed in an equally finely machined aluminum frame, which is visible on the underside of the pickup. The front of the wooden housing features a harp, which forms the company logo. I haven't yet been able to discover the connection to the mandolin, i.e., the type designation, but perhaps I don't need to.

## Generator

Inside the pickup is a yoke construction made of gold-plated pure iron parts and a high-quality samarium-cobalt magnet, which provides the necessary field strength. The secret of the mandolin's sound is said to lie in the magnet construction. However, the „business end,“ i.e., the stylus and stylus carrier, may also play a role. The pale red color of the thin rod already hints at this: a ruby stylus carrier is used here, which is the stiffest material for this purpose after diamond. It carries an elliptically cut diamond.

With an internal resistance of five ohms, the Mandolin is modern and low-impedance,

and high-purity OCC copper is used as the coil wire. The stylus compliance is in the mid-range at 15µm/mN, which promises compatibility with a large number of tone-arms. The output voltage of 0.35 mV at a speed of 3.54 cm/s is well within the green range and does not pose any problems for MC-compatible preamplifiers. The recommended tracking force is 18 millinewtons, and the terminating resistance should be between 100 and 470 ohms.

So far, everything sounds perfectly feasible. All that remains is to screw the unit under the Reed 3p and listen to its capabilities. The good news is that the cartridge is assembled perfectly straight, so you can confidently use the straight front edge of the housing as a guide for adjusting the angle. The system weighs 8.4 grams and is easy to handle. The manufacturer specifies a tracking ability of 65 µm, which I consider to be a surprisingly conservative estimate. When I measured it, it was closer to 70 µm, which is a very good value.

## Sound

And my goodness—the manufacturer did not exaggerate in its descriptions of the Mandolin's sound tuning: we are dealing with an exceptionally „creamy“ and smooth-sounding pickup. This becomes clear from the very first piano notes of Rickie Lee Jones' „We Belong Together“: The grand piano sounds like wood, it has substance, the strings resonate for a long time. The singer's voice, which can sometimes be a bit unwieldy, sounds buttery smooth here, the reverb sounds natural, and the whole thing has expression and life. Actually, I'm already done at this point and could decide that I want this cartridge.

At the latest when the drums kick in on this track, it becomes clear that a DL-103 doesn't stand a chance against the Mandolin: in comparison, it sounds rumbling and thin. Anouar Brahem confirms the impression I've gained: the Mandolin is incredibly emotional and juicy, even giving life and drive to the sparse desert jazz. If I needed another argument, Robert Plant provides it with „Baby I'm Gonna Leave You“: intense, powerful and fervent, it sounds great on the OTTA. Great cartridge!

*Holger Barske*

## OTTA Mandolin



- Price
- Distribution
- Phone
- Internet
- Warranty
- Weight

2,000 Euro  
TCG, Nordhorn  
+49 5921 7884927  
[www.tcg-gmbh.de](http://www.tcg-gmbh.de)  
2 years  
approx. 8,4 g

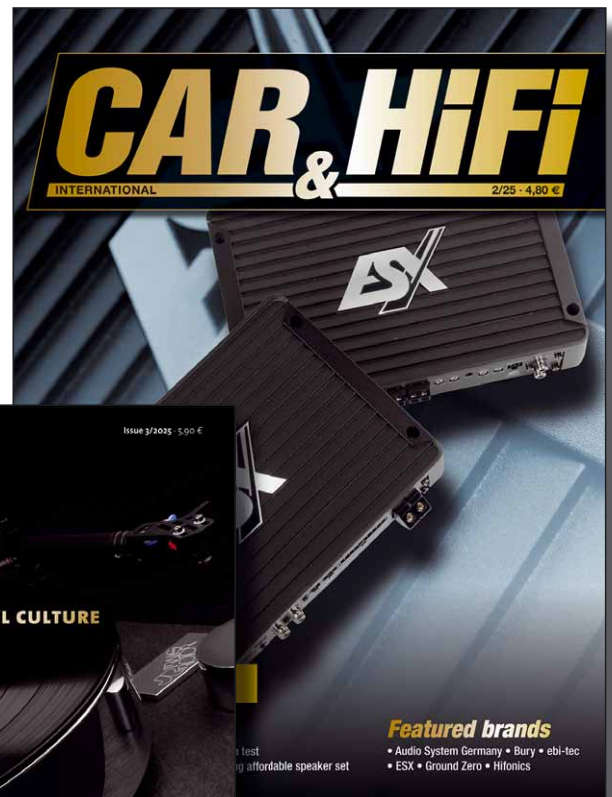
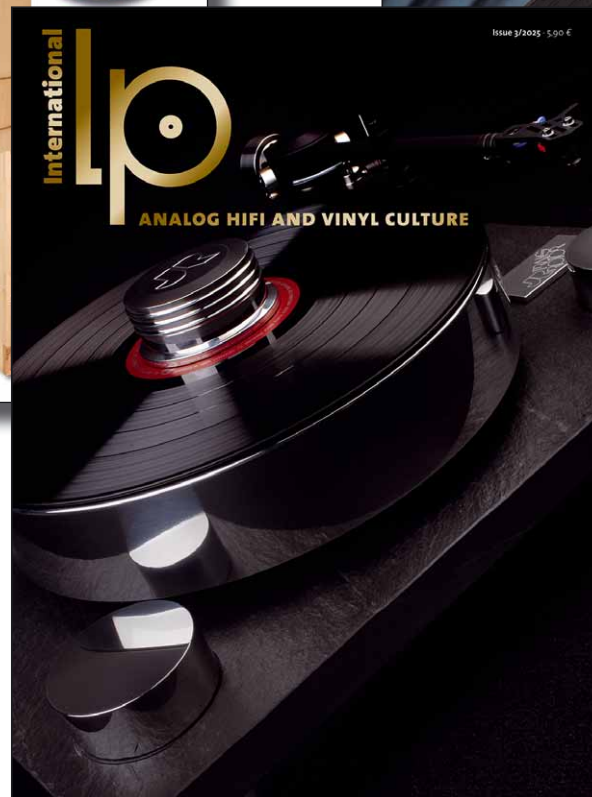
**lp** OTTA  
Mandolin

International 3/25

» The OTTA Mandolin impresses with its warm and powerful character. It is an all-round harmonious cartridge with charm and verve and a beautiful alternative to modern high-speed MCs.



# READ IT !



Now available

## Coming soon:

### Talkin' bout a revolution

Accuphase is once again reaching for the crown in the phono preamplifier category: the C-57 aims to set new standards.



### Cutting edge technology

The brand new "Cotys" phono preamplifier from Bulgarian manufacturer Thrax Audio is also extremely ambitious.



Michael E. Brieden Verlag

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