



absolute phono
inside

api - power supply



Absolute Silence

The Clearaudio Absolute Phono Inside amplifies phono signals with almost no noise and distortions. The music benefits from this with an amazing naturalness.

Author: Bernhard Rietschel

Besides their prominent task of being a good musician, top class turntables still have an important side job: in many systems they serve as the calming factor, the constant point of identification for decades. While hifi technology keeps advancing year after year, a good drive or a good arm effectively can never become obsolete. Or only in a positive sense, because once used production technologies are no longer available these days.

So if you have already spent ten or 20 years with a top level drive, you will be reluctant to replace it – even if this change yielded the world's best phono preamp and promises far reaching sound improvements. And so it's just the strongest asset of the Clearaudio Absolute Phono, which we presented in the previous issue, that turns into a sales handicap: this phono preamp sits directly in the headshell and spares the sensitive microvolt output signals their troublesome passage through the tonearm cable. With the successful result of sensational precision and freedom of noise, but also with the drawback of being bound to Clearaudio tonearms.

The analogue experts from Erlangen soon realised that and brought out a conventional version of the Absolute Phono for those who already own a player and set their heart on it. The advantage of an ultra short link is admittedly dropped that way. But otherwise the amplifier circuit is identical to that of the paragon

except that there's no need for such an extreme miniaturisation. After all the first gain stage no longer needs to fit into the front end of the tonearm tube, but can spread itself out in the rather spacious housing of aluminium and armour wood. On the other hand the Clearaudio designers were not tempted to make it huge. Basically short paths and compact circuits are beneficial in the world of microvolts, which is why in the Absolute Phono Inside the input gain stage also occupies just a few square centimetres. The operating principle of this first stage makes use of the fact that MC systems with their tiny, low-impedance generator coils rather constitute current than voltage sources which, moreover, are inherently balanced: Since the plus and minus outputs of the pickup are connected to opposing terminals of the same coil, the outcome will always be an exactly mirror-inverted signal.

Consequently Clearaudio runs the first stage of the Absolute Phono as a symmetrical current amplifier. They don't seem to care a lot about the fact that this makes it unsuitable for MM systems: apart

from a few exceptions the world's best pickups are all low-output MCs. And nearly all of them go together well with the Absolute Phono, because the low-impedance input of the Clearaudio is sort of auto-adaptive to the connected pickup. The necessity of an exactly matching termination resistor plus the breakers, relays, dip switches or jumpers that go with it can be omitted and thus also a trouble source at the most sensitive spot in the signal path.

The subsequent gain stage provides the re-equalisation of the vinyl frequency response that was heavily bent according to the RIAA curve. The extent of this technically induced bass cut and treble boost is pretty high and amounts to 20 dB in each case. So in order to redo them, you'll need adequately drastic filters. And if these shall treat the sound as nicely as possible and then again be accurate down to the tenth of a decibel, you'll need to fall back on special components. For instance on silver mica caps which Clearaudio has manufactured by a German supplier.

A final pair of OP amps now release

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The super solid armour wood housing quiets the sound:

“Analogue records are unpredictable sound carriers by design. But even the oddest pressings can't shock the Absolute Phono.”



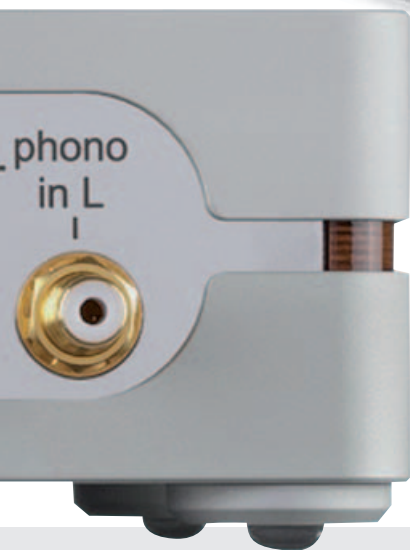
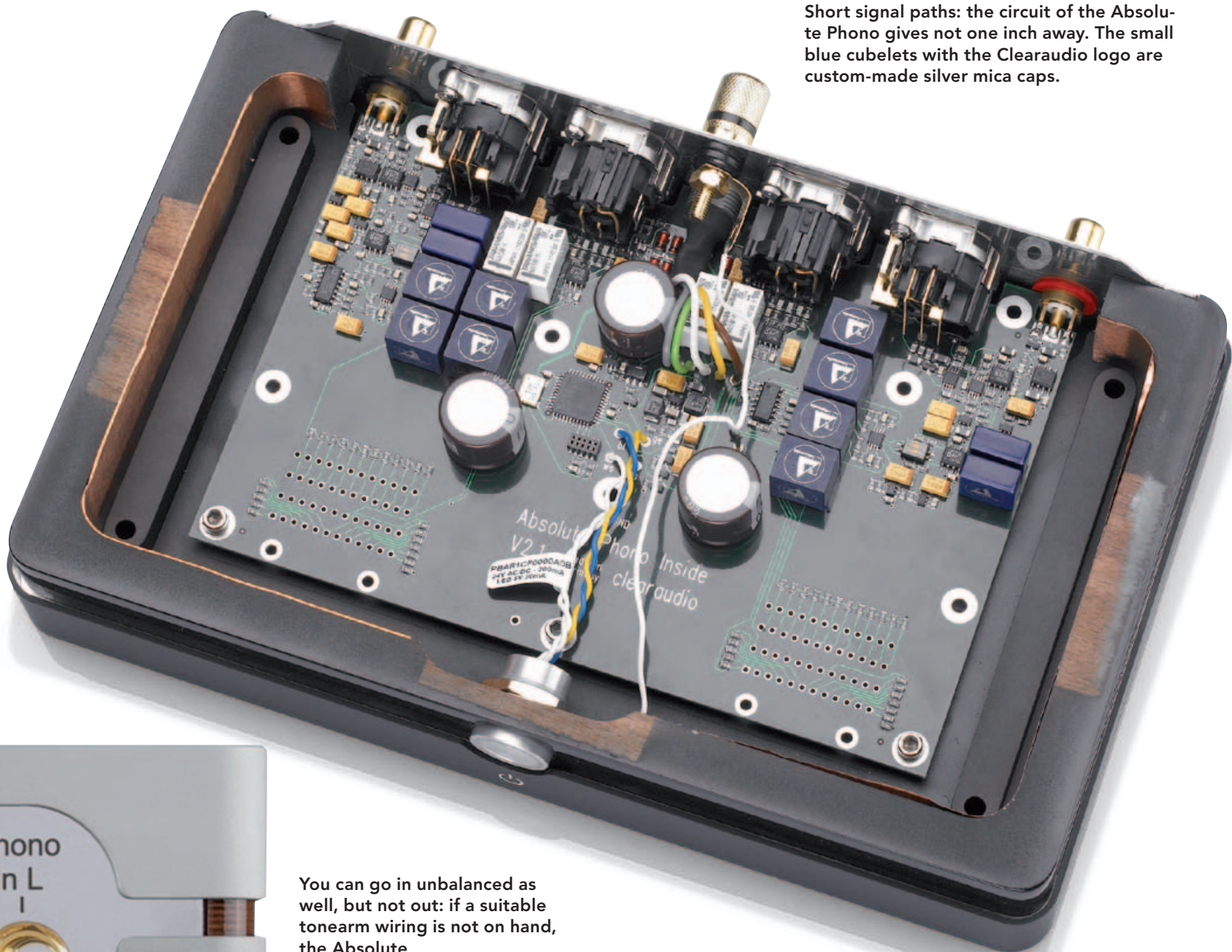
the signals at line level and with a dead straight frequency graph towards the pre- or integrated amplifier. And since the whole phono preamp works fully balanced, the music only comes out the same way, too: balanced via XLR sockets. In theory this could be adapted to RCA, but not with optimum quality.

To use the Absolute Phono in all its glory, the signal must definitely be fed

in balanced to its input. True, there are phono sockets available for emergency cases, but the better solution is a balanced tonearm cable with XLR connectors. With many arms the conversion is easily reversible anytime: unplug the old cable from the arm and plug in the new one. Once you have decided to go with the Absolute Phono, a Linn LP12 or – even simpler because it has no sub chassis – a

large SME or Transrotor drive will also be ready to play within a few minutes. In some rare cases the service must get active with the soldering iron. Fortunately we had a Transrotor Tourbillon with two arms and a Linn LP12 at our disposal, complete with the matching balanced cables for each of them. And we had no reason to complain about a shortage of high-grade pickups, either.

Short signal paths: the circuit of the Absolute Phono gives not one inch away. The small blue cubelets with the Clearaudio logo are custom-made silver mica caps.



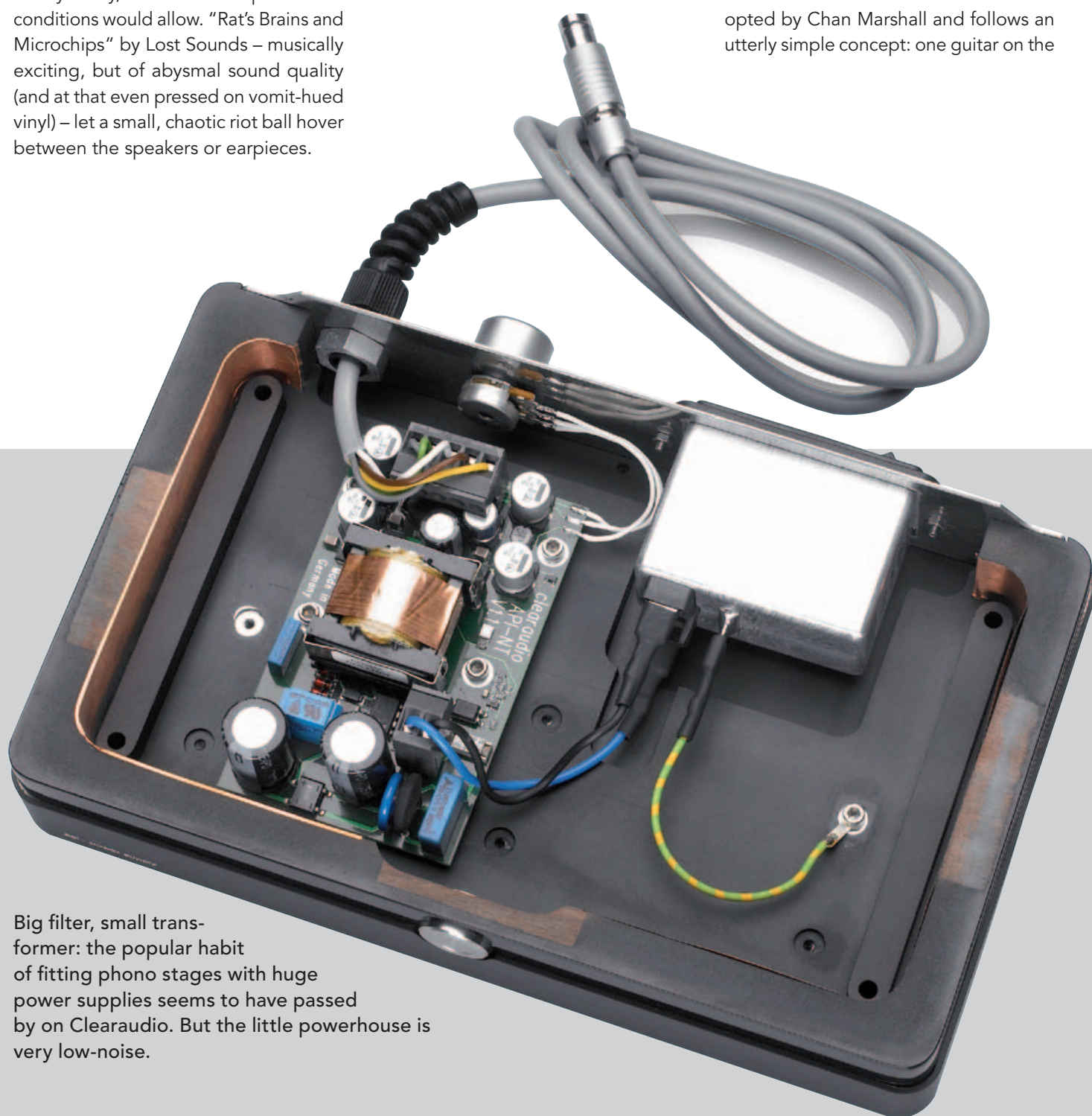
You can go in unbalanced as well, but not out: if a suitable tonearm wiring is not on hand, the Absolute Phono also holds a pair of phono sockets – given the tiny voltages, adapters would be most harmful at this point.

It was particularly interesting to see how the Linn Klyde – the current standard system on my LP12 – which is generally regarded as introvert by tendency, reacted to the stately preamplification. In the past not all preamps from Erlangen could really make me happy. I felt that especially some of the costlier models slightly neglected the dynamic part for sheer concentration on purity and precision. The Absolute Phono did away with that completely. Wired correctly, i.e. balanced, it opened a huge virtual space to the vinyl where the music could now expand totally freely, as much as its production conditions would allow. “Rat’s Brains and Microchips” by Lost Sounds – musically exciting, but of abysmal sound quality (and at that even pressed on vomit-hued vinyl) – let a small, chaotic riot ball hover between the speakers or earpieces.

’90s mainstream sounded wider again, but barely three-dimensional. This was already quite good, with lots of details, but one could feel that in this case the frame was far bigger than the picture. Anything else would have meant cheating on the listener and, above all, would have deprived the really good pressings of some of its effect. Like e.g. “New Style” by L Double and Younghead from the extremely loud 12 inch collection “Breakbeat Science” which came out during the heyday of the Drum&Bass boom in

the late ’90s and tried to blow up the mentioned virtual space with sheer bass force. The Clearaudio liked that, its ample headroom reserves were still a long way away and the room was hammering, banging and booming that it was a real pleasure – not a trace of a pulled hand-brake, the fun was only limited by the system and the neighbours.

Whereas on Breakbeats, which are at best garnished by a voice sample here and there, we can hardly talk about tonal qualities, this works already better with “Dear Sir” by Catpower. The early album has none of those mannerisms later adopted by Chan Marshall and follows an utterly simple concept: one guitar on the



Big filter, small transformer: the popular habit of fitting phono stages with huge power supplies seems to have passed by on Clearaudio. But the little powerhouse is very low-noise.

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The Clearaudio circuitry also convinces on the longer line:

“The first Absolute Phono got closer to the music – like the Hubble space telescope did with the stars. The Inside produces almost the same effect, but with every arm.”

left, one guitar on the right. In the centre the characteristic, driving drumkit of Sonic Youth drummer Steve Shelley and Marshall's voice. The latter tangibly sensual, the drums powerful, with a wonderfully big, solemnly reverberating snare, the guitar amps on the right and left side with a very unique sonic touch – most phono amps will simply communicate “rock guitar” here without any further distinction.

Amazing, too, what happened when I listened over a headphone with the volume turned up higher and then lifted the tonearm, e.g. to turn over the record: virtually nothing, that is. The Absolute Phono is very low-noise. Which, like with all low-noise preamps, also benefits the

music indirectly, because the timbres appear to be purer and subjectively a bit darker than through equipment with a higher noise floor, but not at the expense of resolution. An extreme wealth of detail with a sonorous, soft tonality – in the digital domain this is most likely achieved by players with a very low jitter, whereas the analogue world needs low-noise and low-loss preamps like the Absolute Phono for it. Then you're set even for Daniel Lanois with his peculiarly alienated recordings (“The Messenger” from “For The Beauty Of Winona”) and – subject to a sufficiently broadband chain – everything will yield 100 per cent of the effect which the artist in front of the mixing console had in mind. <



Test LP
Muddy Waters
Folk Singer
(MFSL)

An immortal blues record with a dream cast featuring Buddy Guy, Willie Dixon and Clifton James. Recorded in 1964, the MFSL version from 1993 offers slide guitar and vocal entries like whiplashes – pure dynamics!



The author
Bernhard
Rietschel

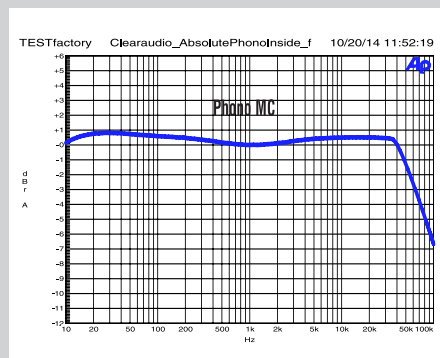
would hate to part with his over 20 years old LP12, but loves to experiment a lot with turntables, pickups and, of course, phono preamps, probably the most underrated link in an analogue high-end chain.

Clearaudio Absolute Phono Inside

List price: 9,900 EUR
Warranty: 5 years
Weight (set): 7 kg (15.5 lbs.)
Dimensions (W x H x D):
Preamp and power supply
24 x 5,6 x 14,5 cm (9.4 x 2.2 x 5.7 in.) each
Surfaces: Armour wood with massive aluminium in black or silver

Distribution:
Clearaudio Electronic GmbH
Spardorfer Strasse 150
D-91054 Erlangen
Phone: +49 (0) 91 31 / 40 30 00
Internet:
www.clearaudio.de

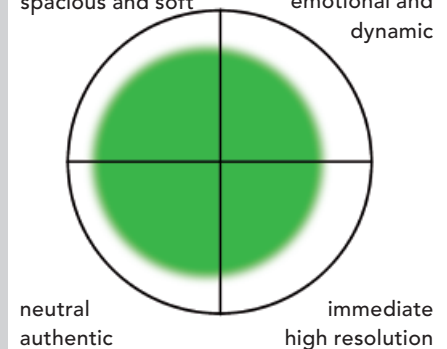
Frequency Response



With S/N ratios of 78 dB (RCA input) and greater 80 dB (XLR) the Absolute Phono has very good noise values. The frequency response shows a limitation at around 40 kHz and a very little bass and treble boost of about 0.5 dB each. The low-Z (64 Ω) XLR output can also drive longer cables easily.

AUDIophile character

effortless spacious and soft gripping emotional and dynamic



AUDIophile potential



Recommendation

Unexpectedly full-bodied, smooth sound despite (or just because of) spectacular resolution: the Absolute Phono also convinces in the conventional “Inside” version.