

Rotation Artists



For years Clearaudio has been filling its treasure chests: with its own magnetic bearing, carbon tone-arm, pick-up, precision engineering know how ... In the Performance DC all of this has now been brought together. In thoroughly attractive form, but at a price that is much too low.



Author: Andreas Günther

We have it easy. We can become enthusiastic over a product, learn how to use it, exploit it – without having to pay for it. On the other hand, it is painful to part company with a test candidate. Of course, we do not always feel this pain. Only sometimes. Taking leave of this turntable will not be easy.

Because here so much practicality is combined with so much elegance. Not to put too fine a point on it, there are turntables that one likes to use only late at night, because they are optically displeasing. And there are turntables that one wishes to put in a glass case, but not actually listen to. The new Performance DC, in this respect, is a total work of art, complete, attractive, sophisticated.

Because the manufacturer quite simply has arrived at a point in the company's history where he is able to make use of a fund of expert knowledge in terms of form and technology. This is a feast of precision engineering. One experiences a certain devotional wonder at this uncompromising attitude. A turntable for 2,850 Euro is not really an inexpensive Hi-Fi product, but on the scale of the current world market still good value. And of course we are talking about Made in Germany. To reach a final customer price like this Clearaudio must surely have been cutting corners? Here or there a consciously calculated weakness? No. This complete package could have another and higher price tag, and it would not be misleading in the slightest.

Those likely to buy will include some beginners, but more likely those returning to the world of vinyl. With aesthetic awareness but no prior knowledge. Which is why Clearaudio is very cleverly attracting this target group with perfect presentation and packaging. The Clarify carbon tone-arm is pre-mounted, similarly the Virtuoso V2 pick-up. Between the arrival of the parcel delivery service and the first sound not even ten minutes have to elapse. If it were not so patronizing – all classmates in this industry can

cut off a slice from the operating guidelines and packaging concept, to say nothing of the variety of extras. Clearaudio includes with the Performance a tone-arm scale, a settings template, bearing oil and an additional counterweight for extra-heavy pick-ups.

The complete fascination of precision technology micrometer work is experienced when one puts the turntable on the ceramic axis – the table does not sink or flop, but needs a few minutes for the oil to balance out the pressure conditions in the precision construction. The table itself is powerful but not pretentious, four cm high and made from black POM, a thermoplastic synthetic whose full name is Polyoxymethylene. Looks classy, gobbles up nasty oscillations and can be CNC machined to high precision. Clearaudio makes it rotate over a sandwich construction from highly compressed wood that is surrounded by two black or natural-looking (optional) aluminium

plates. Everything slightly rounded, a pleasure to the eyes. You sense an appeal to the aesthete – and so as reviewer you add a slightly larger dose of blindfold testing. So that the listening is not preconditioned by the visual beauty.

The impetus comes from a newly developed DC motor. Of which Clearaudio thinks highly. But is not prepared to divulge the details. An old acquaintance, on the other hand, is the Ceramic Magnetic Bearing: Two homopolar magnetic fields create repulsion that carries the platter's weight like a floating carpet, centered by an axle of polished ceramic. The minimal friction is revolutionary and Clearaudio justifiably proud. This mechanism, however, gobbles up man-hours and material costs – which is why it is used primarily in the top line of its products. The price cutter so far, the Concept, has not had and does not have the CMB. The Performance SE is a step higher and has CMB but ,only' the sapphire- >

Fine fare right up to the top: Clearaudio delivers the Performance DC complete – including the new Virtuoso V2-System in hand polished ebony housing.



Vintage but stylish:
A flat belt transmits the rotational energy from a DC motor to its ceramic in-house magnetic bearing.



The complete range: Clearaudio can also rotate with 78 rpm at the touch of a button. Not often used, but for sections of the target group a 'must have' option.



Gem after gem: A Clarify tone-arm with friction-free magnetic bearing.



bearing Satisfy carbon-fibre tonearm. The new Performance DC is resplendent with a Clarify carbon arm with friction-free magnetic bearing. And a new Virtuoso V2 system at the front end. For the second generation Clearaudio has upgraded the MM cartridge with new magnets and a hand-polished ebony housing that completely surrounds it. The V1 version, by comparison, looks like a poor relation.

As we said, the only serious way to test such a gem is blindfold. And the impression is all the more forceful when one re-discovers also in the sound all the attractions described, external and mechanical. The Performance DC is a mixture of good looks and good engineering. It is very smart, elegant but uncompromising in the hard values. Its sound is not particularly groovy, but clearly presents dynamic values. All very unforced, positively, provocatively effortless.

Always a horror for every record player: David Sylvian's „Secrets of the Beehive“ – a highly, if not over-complex studio album of the later 80s. Sylvian doubles

Robert Suchy, managing director Clearaudio

„We designed the Performance DC to show that an excellent value for money does not necessarily mean production in China.“

bass lines, puts the needle under pressure with floating horn phrases. Not exactly hyper-loud, but heavy going in the combination. If the turntable drive is too inconsistent, the dynamic breaks in. If the arm is too light, signs of nervousness creep in. If the pick-up is too showy, it gets woozy in the middle. At none of these critical points did the Clearaudio lose its way – this alone is worthy of an accolade. This stability as well as the extra kick make it stand out among the competition. The charm is in the right

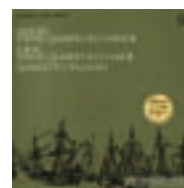
combination of arm and pick-up. A side-by-side test with our reference MC system pushed the Performance DC to more resolution of the spatial information, but at the same took away the velvety presence of upper bass and middle – the inner harmoniousness of the acoustic instruments and voices. On the other hand, another strong argument in favour of MM systems such as the superb Virtuoso V2 – moving magnets are not the younger siblings of the moving coil aristocracy but independent High End products.

Harmonious, clear – almost a Bauhaus product: Clearaudio, with the Performance, has achieved an already archetypical form language, reduced to the maximal efficiency.



Stop. Handbrake – this text is beginning to sound like worship. The Performance DC also has weaknesses of course. For example ... Honestly ? We would have to be less than honest if we now wanted to address the subject of imperfections. Except for the unnecessarily modest price tag there are no attempts to mislead. An astonishingly closed total impression. If you want to navigate your way through the limits, you might try chamber music. This is always a major challenge for any record player and it is not always obvious. Mighty low bass impulses are possible for many players. But to be sedate and orderly in a small chamber music salon is a lot more difficult. For the turntable manufacturer as well as the record manufacturer. Everybody rushes for heavy EMI pressings, English Decca issues and Deutsche Grammophon tulips - and criminally ignores the skill of the Philips engineers. The Dutch label in the 60s had one of the best string quartets, the Quartetto Italiano, under contract. The common Beethoven and Mozart were certainly pressed millions of times. The quartet

(three men and a lady second violinist) reach a class higher with the Ravel quartet. We brought the Performance DC to its limits with this light but harmonically and rhythmically tricky music and compared it with equipment that is relatively price-intensive and customer-friendly. Clearaudio was the clear winner. Because it transferred clearly fewer groove sounds in the pianissimo sections to the speakers and still did not misleadingly obscure the recording space, that is cut the high range with tactical cleverness. If you want to achieve everything, driver and arm are not limiting factors – we have experimented with proportionally almost insanely expensive MC pickups and pre-amps. Dynamic precision and calm are clearly the product of fundamental mechanics. If the drive to achieve more is compelling, it is always possible to make cosmetic changes. Not entirely stupid, but in fact superfluous. But to repeat: The Performance DC as an affordable work of art is quite simply untouchable. We will experience a pang when we have to part company with it. <



Test-LP

Ravel Quartetto Italiano

Many can do rich basses. But suck up the inner tension of a string quartet ? The Quartetto Italiano wallows indulgently in Ravel, but dispenses with unnecessary saccharin – the recording is very direct and the pressing luxurious (Philips).



The Author

Andreas Günther

Vinyl fans have to carry more than CD fans. And not just the black discs. Our author always has a miniaturized tool box handy : hex keys, pliers, scales, positioning pin, scalpel. But it was seldom used so little as in the case of this easy-to-maintain allrounder.

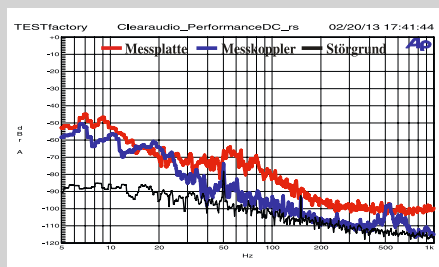
Clearaudio Performance DC

List price: 2,850 Euro
Warranty period: 5 Jahre
Weight: 13.5 kg
Dimensions (WxHxD): 42 x 11.5 x 33 cm
Surfaces: black or silver

Distribution:
Clearaudio,
D-91054 Erlangen
Germany

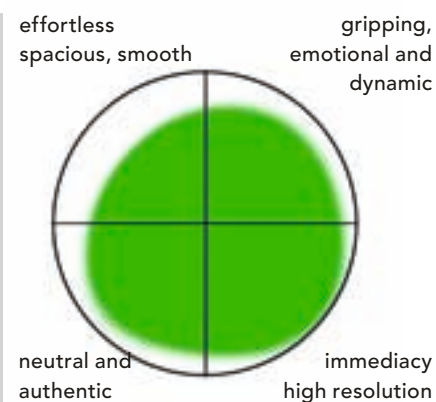
Phone : +49 9131 59595
Internet: www.clearaudio.de

Noise Spectrum



If a product seems almost too upmarket to be true, you look twice as critically at the measurement results. But in the case of the Performance DC they are pretty well perfect: The synchronization is very good, the rumble is low.

AUDIOphile character



AUDIOphile potential



Recommendation

The art is in the combination. The analysis is in the drive and arm, the velvetiness in the pick-up. Together: ultra-stable and way above the price class.



All on board

Exemplary. Almost nerdy. The Clearaudio Performance DC is delivered in fully assembled condition – a tricky venture, considering global transport routes. Packing and free adjusting tools are excellent, however.

Author: Andreas Günther

Suspicion is not amiss if a record player is offered as a ready-to-use and perfectly adjusted item. An impossible thing. Because only at the place of operation can the pickup/tonearm combina-

tion really be fine-tuned to their duties. Without intending to sound mystical: This rite of passage serves to strengthen the relationship between man, machine and, not to forget, music. While respect is

important here, fear is counterproductive: Even a complete novice need not fear. Provided, he has a good half hour and a few small tools at his disposal. More specific, in the case of the DC's performance: You only have to take the time; the tools are provided: Clearaudio include them in their delivery. Exemplary.

Everything revolves around the seemingly simple but difficult-to-achieve ideal line, by which the stylus follows its path along the groove. There are several parameters that can go wrong: wrong angle in the horizontal plane, the vertical plane, the distance to the axis of the tone arm, and of course the wrong stylus force. The last issue is the easiest to deal with: Using the counter weight, balance the tone arm and mounted pick-up (without stylus guard) – it should „float“. Then, depending on the design of the scale on the arm, determine the stylus force. The preferred value is specified by the manufacturer of the pick-up, mostly as a range; when in doubt make it rather a bit more than too little. If the stylus is so minimalist that it doesn't offer any fine scale, a simple, external tipping bucket might help: Lower the stylus onto the disk; if the lever sinks, the displayed weight is reached. If you wish to do this more often and more accurately: There are high-end balances with digital displays on the market.

The next step: The height of the tone arm. If the stylus is lowered into the groove, the alignment of the arm should



Gravity is the friend of all vinyl enthusiasts. First question: Does my record player stand evenly? Clearaudio provide a bullseye level. Second question: Is the stylus force correct? A tipping bucket can show you; it's simple but reliable.



The best adjusting gauge? Comes with the individual tone arm. Clearaudio describe in detail how to fine-tune the pickup.

be perfectly horizontal above the vinyl. Good vision is sufficient, possibly supported by a protractor from school days – stop the turntable and just place the protractor on the vinyl as a measuring tool. In jargon this is called the „vertical tracking angle“. Or in short: „VTA“. If the arm really has to be raised or lowered, the individual design of the manufacturer is the decisive factor; beginners and new owners should ask their dealers to discharge their service duties. All others will achieve their objective with washers, a hex wrench or a screw and locknut.

Usually done by a single visual check: „Azimuth“. The stylus has to sit verti-

cally in the groove, while the pickup has to run absolutely parallel to the record surface without any jamming. If anything does not fit here, you'll hear distortion and significantly a shifted stereo imaging. However: The chances of misalignment are minimal and mainly occur with screwable or rotating pickups or one-point-mounted tone arms.

Now, for the most difficult issue: Offset angle and overhang. Two terms that, even in the choice of words, will sound scary to most beginners. The use of a specialist tool is indispensable here. A tool, however, which should not be missing in the scope of delivery of any record

player and/or tone arm: an adjusting gauge. The „horizontal tracking angle“ can be eased, but not remedied. Background: A record is cut tangentially. The market is dominated, however, by pivoted tone arms, which have only two points at which they are aligned at an ideal angle to the record groove (meaning: zero tracking error). Officially, the IEC standard suggests that said „zero crossings“ be positioned at 66mm and 121mm from the centre of the turntable. So, disconnect the record player from the mains (to avoid the turntable from suddenly starting), and bring the adjusting gauge in position. There are hundreds of providers for such tools, some of them web downloads that need to be printed to scale onto paper. There are two basic versions on the market: Adjustment of offset and overhang at a single point or separate alignment at two points. In the latter case, lower the stylus to the inner of the two zero crossing points. The enclosure of the system should now be parallel to the printed line grid (look from above, then from the front, then repeat ...). If it does not fit, slightly loosen the screws holding the pickup and move it forwards or backwards. Repeat the procedure at point two. This double test makes sure that the stylus is at the correct angle and in the ideal position in respect to the geometry of the tone arm.

Finally, check the stylus force once more and set the anti-skating. It is not obligatory to use the same value here; 75 percent of the stylus force are often an ideal anti-skating value.

Learned enough? Wonderful; now you can begin to forget. In the grand finale it's not the diagrams, scales and lines alone which are decisive – it's the ear. So, after hard facts we return to a soft value. Tip: Once you have finished adjusting your pickup/tone arm combo according to the above details, you should treat yourself to an experimental phase. In the range of about 15 percent readjustment, the reproduction performance rises once more – especially given the right combination of anti-skating and force. But this is pure freestyle and playing with miniscule values.

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Clearaudio supply an extra weight with the Clarify tone arm – to be screwed on in case of extra heavy pickups.