



LEEMA TUCANA II & STELLO Ai500 amplifiers



CLEARAUDIO INNOVATION turntable



SUGDEN MYSTRO integrated amplifier



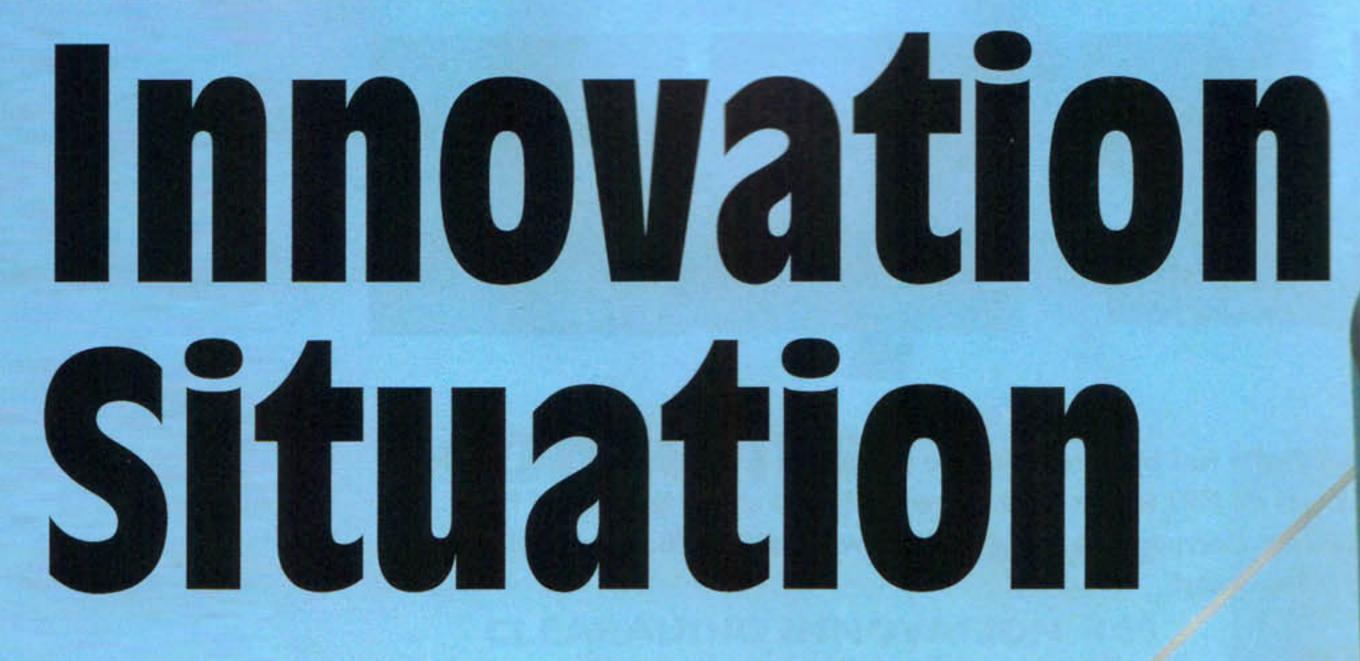


13 PAGES OF LETTERS - THE BEST WINS A PAIR OF KEF iQ30 LOUDSPEAKERS! (UK ONLY)

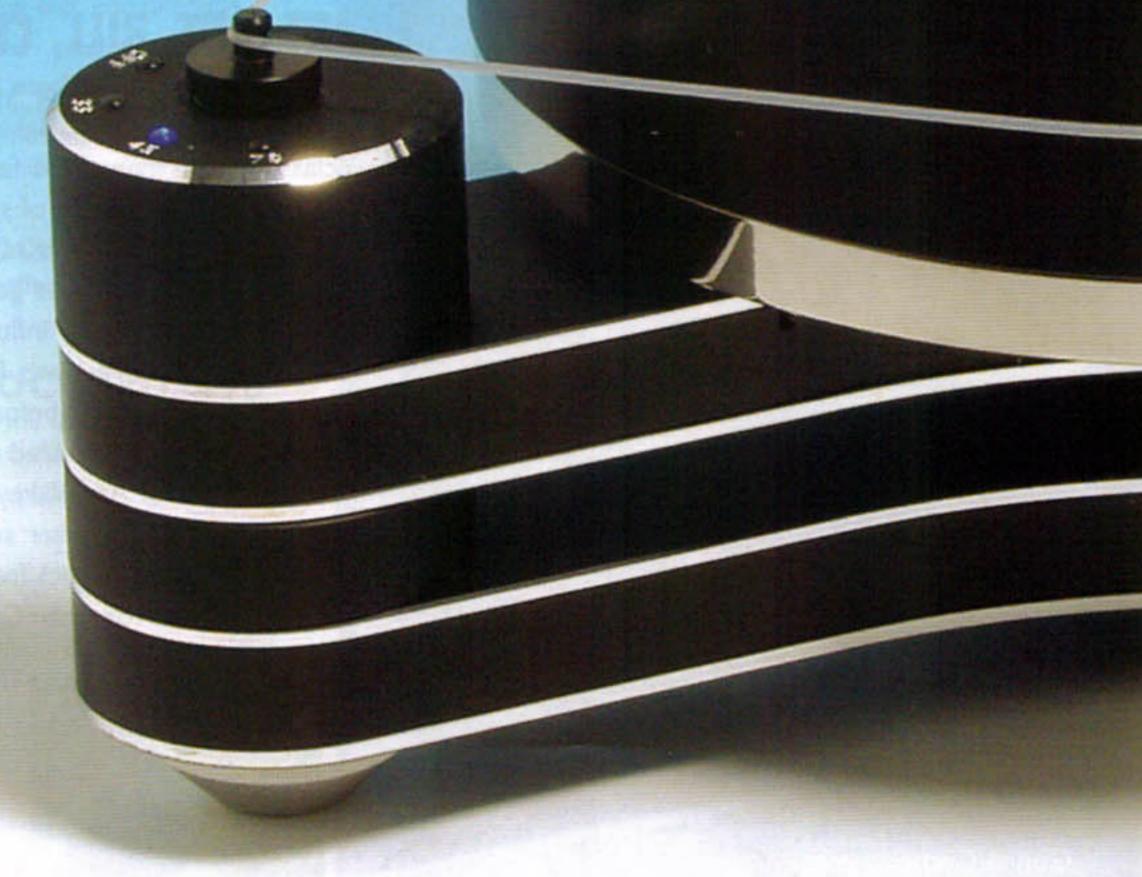
> CONSONANCE T988 UNIPIVOT TONEARM

> ACOUSTIC ENERGY RADIANCE 3 LOUDSPEAKERS

> PHILIPS FIRST GENERATION CD PLAYER FEATURE



Adam Smith listens to the latest Innovation turntable from Teutonic vinyl-meisters Clearaudio...



ust as Italian products have traditionally been portrayed as 'full of character but flawed', so German designs were often regarded as 'staid and a little dull, albeit well engineered'. Nowadays though, Teutonic products are more universally admired, in the sense of forward looking, well designed and unerringly well built. It's not difficult to see why this is now the case, as some products coming out of Germany are built like few others. It's often said that, if you want to know what features the family car of a five years time will have, just look at the current Mercedes S-Class...

This holds for the hi-fi industry too. A wander around the hallowed halls of the Munich

the Munich
High End
Show
reveals
a whole host
of companies
churning out
products that
make some
of their
contempo-

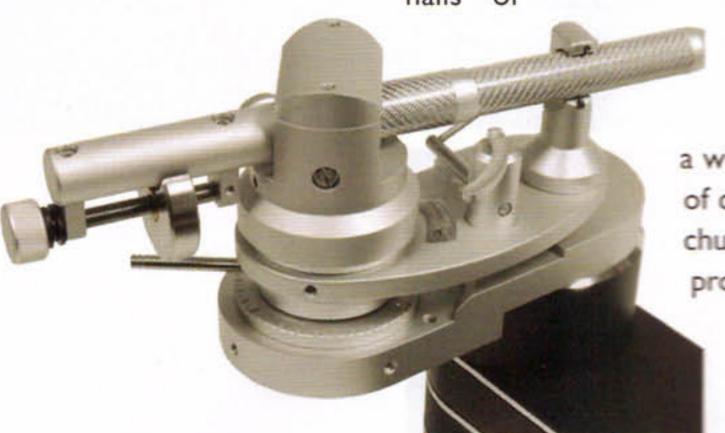
other nations look both staid and ineffective. The leaders in the German turntable field are surely Clearaudio. With a product range that culminates in the Statement, which Clearaudio describe as "taking the best and making it better" and for which adjectives like 'mighty' seem too weak, this is surely 'Germanic' in the very best sense of the word.

A glance at Clearaudio's range shows that it's growing rapidly, and latest to arrive on the scene is the Innovation turntable, described by the company as "setting new standards in high end turntable manufacturing". Whilst a cursory glance may reveal nothing more than a funky looking belt drive design, things are rather less simple under the skin. Firstly, the deck features Clearaudio's patented floating magnetic bearing for virtually frictionless drive, and the three speed motor uses a new optical regulation circuit to control its speed, where an infrared sensor monitors a highly reflective calibrated scale on the underside of the platter and the control system keeps the speed under check through feedback from this. A quick glance over at the astonishingly impressive

measurements obtained by this [see MEASURED PERFORMANCE] show that this system works very well indeed.

Other than this, the chassis features a shape that has apparently been optimised for resonance control, and the platter is a twopart design, featuring a steel lower platter with the markings for the optical sensing system, and above this a Delrin second part that provides the contact with the record and the drive surface for the belt. Each speed is adjustable through trimpots in the chassis and the whole caboodle sits on three spiked feet, which are easily adjustable for levelling. Fit and finish are very good, although the lightweight 'wall wart' power supply struck a rather discordant note, particularly given the impressive mass of the rest of the 23kg beast!

Clearaudio's new tonearm, the
Universal, which itself encompasses
a number of noteworthy features.
Obviously the high quality bearings
are a given, and the arm tube is
a carbon fibre type with differing
diameters along its length to
dissipate resonance. An optional VTA



raries from



adjustment collar is available, which permits tonearm height adjustment during play and the headshell can be loosened and rotated for optimum cartridge azimuth adjustment. Once again, measurement shows that this works very well; the arm design is clearly beyond reproach. I was however rather disappointed by a couple of fit and finish issues. That VTA collar has no lock on it and allows the whole arm a couple of millimetres of lateral free play unless adjusted to its end stop. Also, the screw thread for the magnetic bias compensator made a squealing noise as it was adjusted. Small gripes maybe, but I personally feel they are valid, when similar and considerably cheaper products from the likes of SME, Jelco and Rega are beyond reproach in this respect. I also have to confess that, to my eyes, the Universal is challenging aesthetically. Still, I used to own a Ford Scorpio, so perhaps am not best qualified to pontificate on matters stylistic!

# **SOUND QUALITY**

Clearaudio supplied the Innovation with their £3,600 DaVinci cartridge and this was how I commenced

listening. Initial impressions were very good indeed, with the whole combination turning in an effortlessly detailed and intimate performance. There seemed to be no particular area of the frequency range leaping out at me, as the Innovation took everything in its stride quite happily and offered a uniformly strong performance from top to toe.

Treble in particular was a pleasure, as the Innovation seems to have mastered the trick of being simultaneously insightful and blessed of fine clarity, whilst also imbuing the top end with a delightful softness and sense of flowing ease. Cymbals and hi-hats were never jarring or splashy, and yet they never floated off into the background to be glossed over, as is all too common with turntables that offer more of a sense of smoothness to proceedings. The Innovation and Universal strike a finely judged balance in this respect.

Where this paid off particularly handsomely was in terms of busier classical material, where the Innovation separated out the action with almost surgical precision. Filling the front of my listening area with scale and drive, the horns and brass



were easily distinguishable, both in form and location in the soundstage. The violins in the particular piece I was playing were expertly located to the left of the action and completely free of any nasty hints of screechiness. I did feel that some other decks I have auditioned at the price, such as the Thorens TD550, were better able to pull the action out into the room and consequently draw me as a listener better into the recording, but the Clearaudio still made a top job of throwing images well to the sides to offer a broad sense of perspective.

Changing the tempo a little to some classic rock in the form of Focus's 'Moving Waves', I noticed that the Innovation was really at home when asked to reveal

instrument details. Pierre van der Linden's drumming was particularly noteworthy, as the deck captured the pace and rhythms that he hammered out very well indeed, and offered each drum strike real form and shape. This was a proper stick I was hearing hitting drum skin each time here, and not just a series of connected ambiguous thuds. The backing bass line was a little thicker than I would have liked and the whole performance seemed to be lacking in sheer low end impact. A change of cartridge to my reference Ortofon Kontrapunkt b helped here, reinstating the very bottom end and



area of strength is in revealing the character of both instruments and the human voice. Never did I feel an ambiguity in terms of who or what I was listening to, as the Innovation and Universal made each and every aspect of every recording abundantly clear, but without losing the overall focus of the performance as a whole.

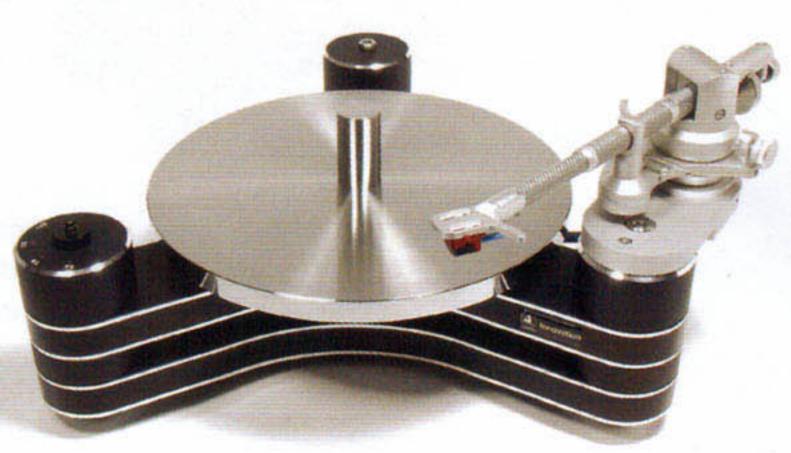
Overall, it is a lovely performer.

#### CONCLUSION

The Clearaudio Innovation turntable and universal arm combination is a magnificent record player, of that there is no doubt. The even-handedness with which it approaches any sort of music means that it always turns in a thoroughly competent and enjoyable performance, no matter how soft and mellow, or loud and thrashy you are asking it to play. My only real remark is that it lacks the 'wow factor' that some decks bearing this sort of price tag have. I never found it anything less

than superbly enjoyable, but equally you couldn't say it's one of the more 'showy' superdecks. Rather than grandstanding, it simply gets into the music in a subtle and delicate way.

This is precisely the point of the Innovation; it's a self-effacingly superb way of playing vinyl that never draws attention to itself, a turntable that should be - as the saying goes - seen but not heard. In the true spirit of German heavy engineering, it's a sophisticated, safe and solid choice that's bound to win many friends.



#### REFERENCE SYSTEM

Garrard 301/Alphason HR-100S/Ortofon Kp. b turntable Anatek MC1 phono stage Naim Supernait amplifier Ferrograph S1 loudspeakers (modified)

improving the upper bass, but that faint sense of fullness was still present, particularly when moving to a favourite test track in the form of Tift Merrit's 'Still Pretending'. Here, the notes from the bass guitar were a tad more rounded than I am used to via my idler drive Garrard.

Still, the rest of the frequency range more than compensated, as the Innovation and Universal combo proved equal to the task of getting right to the heart of whatever I chose to slide under its stylus. Hard rock pounded forth with clarity and power, soft classical whispered out of my loudspeakers and the Clearaudio offered a pleasingly intimate rendition of Kari Bremnes' vocals from her 'Norwegian Mood' LP.

Once again, through my system I felt the deck was not quite filling in the centre of the soundstage as much as some, but there was no doubt that it captured her vocal inflections and the fine tonality of every backing instrument brilliantly. All in all, the Clearaudio's real

## **MEASURED PERFORMANCE**

Our analysis of arm vibration using an accelerometer shows the assembly is fairly inert by current standards, all peaks being below 0.1g. The main arm tube bending mode lies at 500Hz and is very low in amplitude; this is as good as it gets and suggests the arm will have solid bass, stable stereo imaging and likely a wide sound stage at lower frequencies. The third order bending mode which also affects the headshell and cartridge is clearly at 1500Hz, is narrow and of low amplitude so will add no arm 'ting' type colouration. There is an unrelated small peak between them at 725Hz but it too is of low level and, being narrow, holds little energy. The usual forest of high frequency modes possibly related to the headshell exist above 4kHz but again they are of low level so treble should be clear.

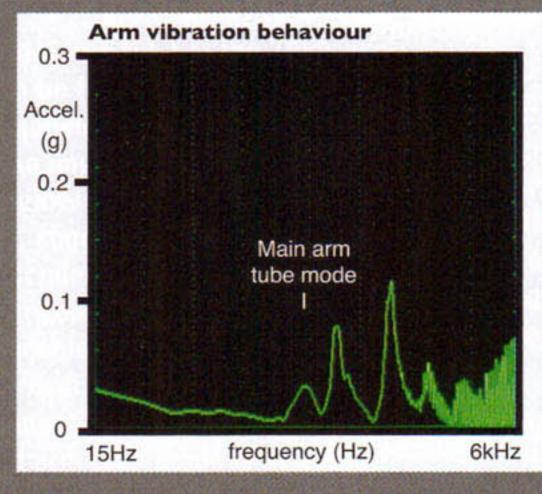
The Clearaudio arm measures very well by current standards, being up with the best, if not surpassing them.

The platter does seem to measurably benefit from magnetic suspension, since its unweighted IEC Linear Wow & Flutter figure was one of the lowest we have ever measured at 0.065% and it maintained this low value stably over a long period. As a direct result, the IEC Weighted value was also very low at 0.042% - quite

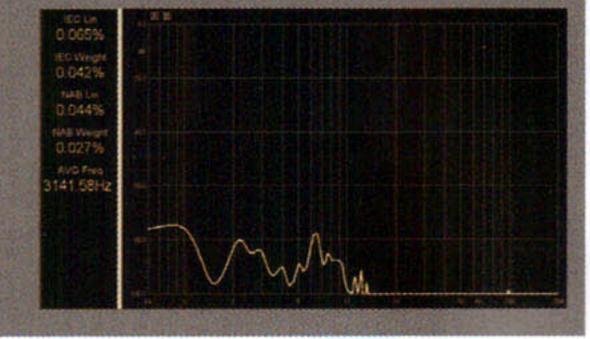
amazing figures that few turntables will easily rival. Absolute speed accuracy was good at -0.3% slow as delivered, an inconsequential error.

Measurement shows that Clearaudio's Innovation turntable and arm offers exceptional results and is a fine piece of engineering. NK

#### ARM VIBRATION



### **WOW & FLUTTER**



#### FRAICI AAAA

High end heavyweight vinyl spinner with superlative levels of detail. Never flustered, it cuts to the musical choice in a characteristically Teutonic fussfree way.

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### FOR

- uniformity of performance
- vivid midrange detailing
- soft and enveloping treble
- superlative speed accuracy
- sheer stature!

#### **AGAINST**

- a few minor build issues