

# hi-fi+

Issue 41  
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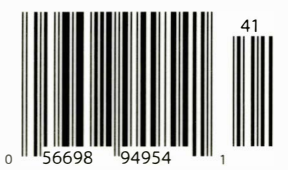
7/41 HI-FI+

## BACK TO "BASICS"



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# Editorial

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## Printed By

JPS Litho Ltd., Poole

Hi-Fi+ is published eight times  
a year by; Hi-Fi+ Publishing Ltd

ISSN 1465 5950

This week I received a request from a reader for information and advice: nothing unusual in that. Indeed, we receive a seemingly endless stream of such requests. What set this one apart was the scope of the request. The writer required precise comment on the merits, performance and sonic character of no less than six, ultra high-end turntables, together with comparisons between them. That and a few further trivialities aside.

Now consider this from my point of view. There's enough information there to fill half an issue of Hi-Fi+. Where exactly am I going to find the time to respond, even if I possessed the knowledge required (two of the 'tables aren't even available in the UK!). Take a look at the masthead of one of our competitors. Now take a look at ours. You'll see no Deputy Editor, no Editorial Assistants, no Music Editor, no Technical Editor. You'll also see no listing for Art Direction or Production Management. That's because I get to do all those jobs. Plus is a very, very tight ship that runs on minimum overheads. Now take another look at those other magazines and see how many reviews and how much other writing those editors actually contribute to their titles: Not a lot.

By now you'll be starting to get the picture. We simply can't respond, personally to individual requests for information. We don't have the staff; we don't have the time. What's more, the advent of e-mail makes it so much easier for people to write in, as well as creating a culture that doesn't just demand answers – it demands them NOW. What we do do is take note of all these requests. Some find their way to the letters page (if they are particularly topical or have wider ramifications), others shape the selection of equipment for review. If there's a quick and simple response and we have the time, you might even get a direct response.

So what I'm saying here is this. Please don't think a failure to respond is down to a lack of interest or laziness on our part. Quite the opposite. By all means keep your requests and opinions coming as we need the input. If you want a reply think about how you phrase the request. Make it something a little more general, something we're more likely to use and you're more likely to see it in print. On the other hand, if you want to tell us what you think, good or bad, fire away. We don't call the letters page "Incoming" for nothing...





**"A little champ of price/quality ratio:  
available at an affordable price, especially for a  
tube amplifier of more-than-usual power."**

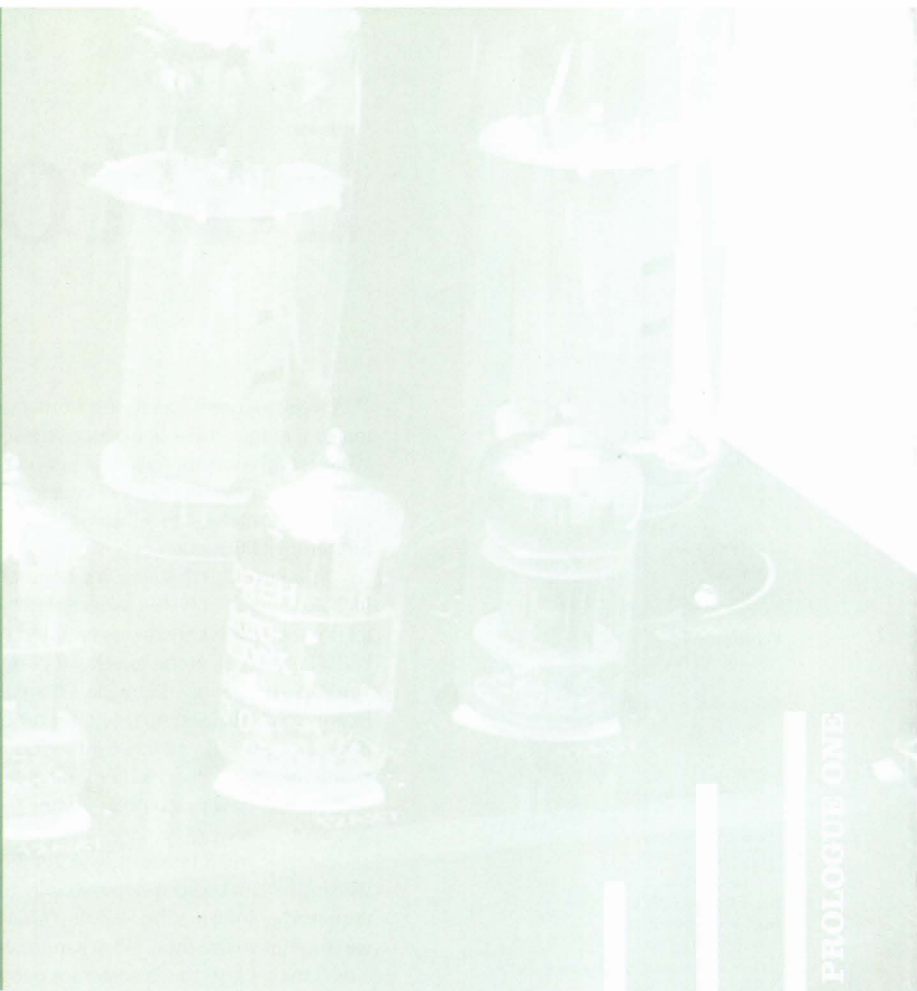
*AUDIO REVIEW Italy, July 2004, Claudio Checchi*

**"PrimaLuna ProLogue One is now my  
'affordable reference amplifier'. With  
apologies to various British and Italian  
geniuses, this amplifier has to my ears  
no equals at its retail price."**

*HI-FI NEWS and record review, July 2004, Ken Kessler*

**"A refreshing change from the transistor  
competition with a captivating presentation.  
Excellent finish and build quality makes  
for a package strong on value."**

*HI-FI WORLD, August 2004, Dominic Todd*



# PrimaLuna

Music is a pleasure not to be denied. So, too, the beauty of music reproduced by valves should be accessible to all. To make available to a wider audience the seductive, silky sound of the vacuum tube, PrimaLuna has developed a range of all-valve amplifiers with the construction, power and sonic performance of high-end electronics, but with one unique, inimitable feature: prices that can only be described as 'entry level'!

Since the arrival of the Prologue One, the audio community has been unable to contain its joy nor reign in its praise because PrimaLuna has revolutionised the concept of 'affordable audio.' With a pair of integrated amplifiers with prices more typical of mundane, solid-state products, PrimaLuna showed other manufacturers that compromises in fit and finish, styling and facilities are unnecessary.

Now PrimaLuna can offer the pride of ownership of true separates to aficionados on a budget. As promised, PrimaLuna has expanded the range upward with three exciting new models for users whose requirements demand separates rather than integrated amplifiers.

To meet these needs, the music lover can now consider the Prologue 3 dual-mono valve preamplifier with four line level inputs, and a choice of two matching stereo power amplifiers. The Prologue 4 provides 35W/channel from EL34 valves, while the Prologue 5 delivers 40W/channel courtesy of the classic KT88 tube.

And there's more good news: PrimaLuna has also announced retro-fittable auto bias boards for the Prologue 1 and 2, and a moving-magnet phono stage for the Prologues 1, 2 and 3. Additionally, there is now a choice of optional gold or silver front panels in place of the standard finish.

Audition the full range of Prologue models at the Pistol Music dealer of your choice. And prepare your wallet for a pleasant surprise.

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# London Show gets much more interactive! (and we're not talking on-line...)

by Roy Gregory

The Hi-Fi & Home Entertainment Show taking place on the 24th and 25th September at the Renaissance and Park Inn Hotels, London Heathrow, will be encouraging more visitor participation than usual this year. In a welcome move, organisers Hi-Fi News have announced a programme of activities designed to give the public increased access to the “experts”.

The Hi-Fi News stand will host four Q&A sessions on each day of the event when you can ask the experts about all things audio and enter a bumper £15,000 competition! Meanwhile, and for the first time, Hi-Fi+ has joined forces with HFN in presenting a ticketed demonstration that seeks to demystify the reviewing process (at least a little). If you've ever read a review and wished that you had a hi-fi to English dictionary you'll be pleased to hear that reviewers from the two magazines will be attempting to demonstrate and explain some of the common terminology and jargon that tends to litter their work. If you think that you know what “transparency” means, but you're not so sure about “presence”, or if the whole thing sounds like double Dutch, then this is the place to come. Of course, it might just confirm what you knew all along – that the fools who write for hi-fi magazines imagine things for a living. Anything, as they say, is possible. Tickets will be available from the magazines' stands, in the Renaissance foyer.

As well as all of this, Steve Harris and Ken Kessler will be on hand to sign copies of their new book *Sound Bites* that seeks to provide a definitive history of the audio industry and examine past, present and future trends. Pop along to the HFN stand to find out when they'll be on hand to put pen to paper and explain just why they

omitted to mention your favourite product.

Besides the chance to actually meet many of the faces that normally hide behind the printed page, there'll also be plenty of new and unusual product on show. Naim Audio will be showcasing its new Reference CD player which promises to be a ground breaking

product both in terms of sonic performance and as an indicator of the company's future direction. There'll also be a new 'home entertainment in a box' system, but as you'd expect from Naim it offers an entirely different take on the concept. Other new gear that will be getting a first public airing includes the new FUNK brand of turntables, and the Bolzano Villettri range of high-end loudspeakers.

There'll be the opportunity to hear the superb Zanden Audio Systems transport and DAC, through Zanden pre and power amps, this rising star of the Japanese high-end offering a fascinating contrast to the 'Oriental establishment' in the

shape of the legendary Kondo cartridge and electronics.

Absolute Sounds will be demonstrating the Martin-Logan Summit speakers, the latest Krell Evolution amp (which is causing quite a stir), and the Sonus Faber Amati Homage II speakers,

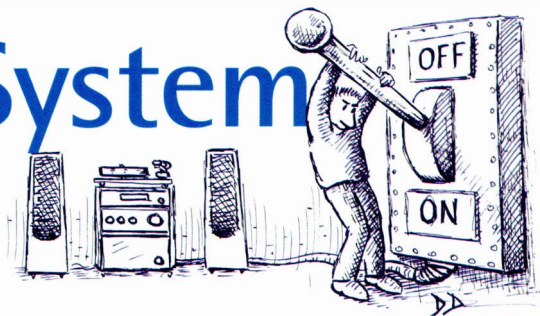
Visitors will also get the chance to take a look at the new Series 15 kit from Marantz including the TT-15S1 turntable, SA-15S1 CD player, PM-15S1 amp and the Ayre C-5xe universal stereo player as reviewed in this issue. And that's just a few of the highlights.

The event takes place on the 24th & 25th September with tickets available from either [www.hifishow.co.uk](http://www.hifishow.co.uk) or by calling 020 8261 8318.



# Playing The System

by Roy Gregory



As is so often the case, planned events can have unpredictable side effects. So it was with the long awaited arrival of the imposing Nola Pegasus loudspeaker system. Deliberately delayed until relocation delivered a space more suitable to their size and bandwidth, the intangible in the plan was the impact of a whole new and barely familiar acoustic environment to deal with. Nothing if not a high-risk strategy, given that the speakers were coming, accompanied – en famille as it were – by the designer and his wife, as well as the UK distributor. The potential for egg on ones face was huge – as was the audience to witness it.

However, as it happens, the process of installation – whilst necessarily involved and time consuming – ran surprisingly smoothly. Along the way it made me realise a few things about the room too, and it's those I'm going to dwell on here. Glance back at page six of Issue 40 and you'll find a diagram of the space involved, along with details of the steps taken to make it work with the Living Voice OBX-R2s – including a pair of Echo Busters bass traps in the back corners, behind the speakers. Now, the OBXs are neither particularly large, nor (as a result of their generous efficiency) particularly extended. A reflex loaded cabinet driven by a pair of six-and-a-half inch paper cones, their reasonable internal volume and pleasing dimensions will deliver intelligible bass information down to something like 40Hz, on a good day and in the right room. That's around the norm for many UK systems, few of us having the space for either much larger speakers or the budget for the much larger amps demanded by wider bandwidth but less efficient designs. It's one thing having the bass potential, it's another actually delivering it and quite another controlling it if you do! Which is pretty much where the Nolas come in.

The Pegasus first surfaced at CES in Las Vegas, two years ago and with the patronymic Alon. Occupying a large room and driven by a pair of Antique Sound Labs Hurricane mono-blocs (that's 200 watts of KT88 a side) they were massive, massively dynamic yet capable of great subtlety at the same time. Even more surprising (especially given the volume levels being thrown forth) they managed to effectively disappear within the soundstage. I thought it was one of the best sounds at the show and they immediately notched a place in my "possible speaker systems to own

once you've the space to accommodate them" list – a surprisingly exclusive club given the amount of time I spend at hi-fi shows. At one end there's the Avalon Diamond (inhibited by the amp required to drive it) – at the other the Avant Garde Trio (handicapped by concerns over tonality and spatial coherence). The Pegasus nestled in comfortably between the two, and a long-term plan was hatched.

Time then to explain a little more about the beast. A large and visually imposing, four-box system, the Nolas offer 11 drivers a side, full-range audio bandwidth and a mean efficiency of around 88dB – and mean is the word, although at least the impedance curve is pretty benign for a speaker of this complexity. But if all this is starting to sound a little formulaic – WATTs, PUPPYs and their many imitators – then rest assured that this is a very different animal indeed. Two things separate the Nola design from the competition: the use of AlNiCo magnets throughout and the fact that despite the number of drivers employed, there are actually only three distinct types. It's a recipe that promises surprising coherence despite the size and complicated nature of the system. Starting at the bottom, the sub-bass units employ four, sideways firing, 8" units, two facing each way. On top of this stands the "mid-bass and up" enclosure, a sealed box that looks roughly twice the size of the bass units, with a flying baffle atop that. Here we find two more 8" drivers facing forward, while what I can only describe as a recessed open baffle located in the rear of the enclosure carries a third, identical driver facing up. The flying baffle carries a pair each of 4" mid-range drivers and metal dome tweeters, all acting in a dipolar fashion. There's a complex ball-bearing isolation system between the two cabinets, and another under the external crossovers. For those of you who recall the Alon Lotus Elite Signature, reviewed in Issue 29 as an understated, unassuming design capable of great finesse and musical insight, here's its (very) big brother, come home from college (where it's playing out an athletic scholarship as a highly explosive line-backer) just to make sure junior is getting pushed around in the playground. The family resemblance is clear, so are the capabilities. It's just that there's nothing shy or retiring about the Pegasus.

Clearly, installing such a capable and demanding



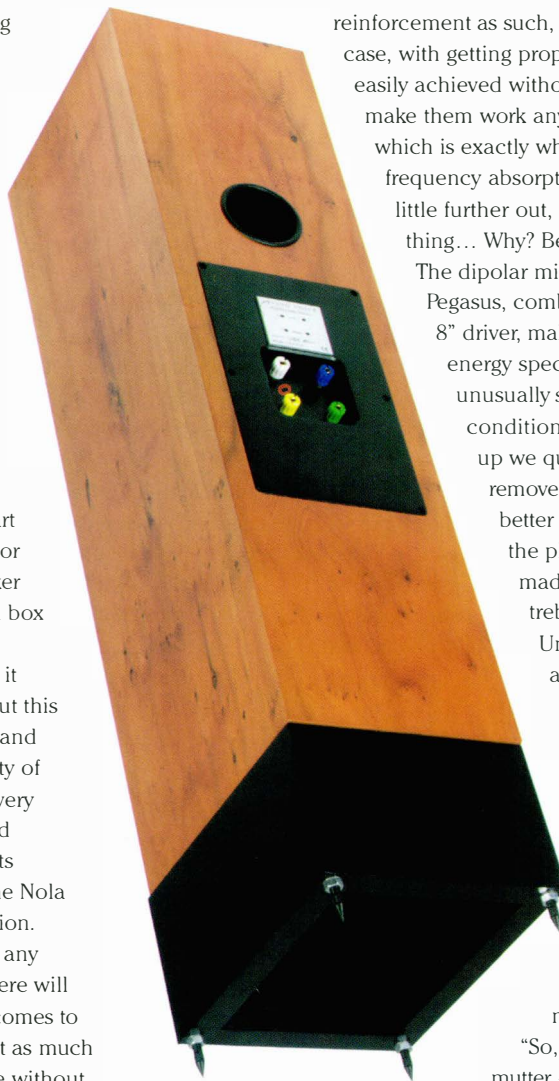


▶ system is not without problems and first on the list is always going to be room interaction. With all that bass, just how would the new listening room cope? Rather well and surprisingly easily is the answer, a situation that got me thinking about the differences between the way the monster Nolas work in the room and the way the much smaller Living Voice speakers do.

Given the benefits that accrued from deploying the bass traps with the smaller speakers, you might well assume that the Nolas would require more help in this regard. In fact, experience proved quite the opposite, the Nolas perfectly comfortable with no additional bass absorption at all. And this from a brand whose previous flagship designs have suffered from an excess of low-frequency power and weight when transported into a UK environment. So what accounts for this? Well, apart from sheer extension, the other major difference between these two speaker systems is their bass loading: sealed box for the Nola, rear-reflex for the OBX. Think about the two in tandem and it starts to make sense. One thing about this room, with its adjacent dining area and open staircase, is that it allows plenty of controlled egress for bass energy. Every speaker I've put in it so far has timed brilliantly – a very good sign. With its prodigious bottom-end extension the Nola simply makes the most of this situation.

Now consider the OBX-R2: with any speaker that's less than full-range there will always be a balancing act when it comes to placement in the room, trying to get as much boundary reinforcement as possible without muddying the music or adversely effecting the pitch definition and placement of bass notes. What you're trying to do is "cheat" more bass out of the system than there really is, which in the case of a reflex speaker is one cheat

Yes, I'm well aware of the compromises inherent in both sealed box and reflex loading. Like most things in hi-fi, they can both be good or bad depending on the implementation. However, in most cases, by opting for reflex loading the designer loses some measure of control at the extreme lower-end of the speaker's useable bandwidth, in return for weight and extension. This bass bonus is followed by a very rapid roll-off, making any non-linearities all the more obvious – which is exactly the delicate situation we're dealing with here.



on top of another\*. So, with the OBX-R2s it's a case of placing them for maximum room reinforcement (in terms of extension) without the port output getting out of control. Which is where the bass traps come in, allowing me to work the speakers a little closer to the wall than would otherwise be the case. Because the Nolas don't really need room

reinforcement as such, we're solely concerned in their case, with getting proper balance – something more easily achieved without the bass traps. After all, why make them work any harder if it isn't necessary – which is exactly what you're doing by adding low-frequency absorption. The speakers end up a little further out, but that's actually a good thing... Why? Because of the rear radiation.

The dipolar mid and treble output of the Pegasus, combined with the rear radiating 8" driver, makes the tonality, imaging and energy spectrum of these speakers unusually susceptible to the surfaces and conditions behind them. In setting them up we quickly found that the more we removed from their rear aspect, the better they sounded. Even dropping the pleatex blind in the window made a substantial difference to treble tonality, air and extension. Unfortunately this simple tweak also revealed a less welcome effect; that of the large picture behind the right-hand speaker. Removing this large area of glass (along with a much smaller one the other side of the window) resulted in another pretty dramatic improvement in the naturalness, focus and dimensionality of the upper-mid and high-frequencies.

"So, take it down", I hear you mutter – at least I hope you're muttering 'cos if Lou hears you there'll

be hell to pay. You see, it's not just one picture; it's part of a triptych, with its partners adjacent or on an adjacent wall. And with pictures this size there's not too many places you can hang three in a row! However, experiments suggest that achieving something similar to the effect of the fabric blind is even better, so an area of light material is the aim. At present I'm looking at constructing a folding screen, like a room divider, on the basis that this can be walked in and out, like the Echo Busters, and stored with them too. ▶

▶ Meanwhile, the significant advance of the front baffles, now some 139cm into the room, has necessitated the repositioning of the first-reflection absorbers. These are now further along the wall and closer together, squeezed by the advancing speakers and a shift in the listening position that's seen the sofa moved slightly forwards by a foot or so. Other than that, the other big change has been moving the system racks into the dining room from their former position between and behind the speakers. As expected this has

delivered a worthwhile dividend in terms of stereo imaging (especially depth) and low-level information. What I wasn't expecting was the improvement in micro-dynamic discrimination, coupled to greater overall integration and coherence of individual (especially solo) instruments into the whole. All of which further confirms to me that the worst place for a system is between the speakers it's driving. It's just a good thing that I already had long cables and I don't use remote controls..



# Music Matters



by Alan Sircom

One of my pet hates is our 'rights without responsibility' society. Other pet hates include visible hipbones on women and pickled beetroot, but these aren't entirely relevant in a hi-fi magazine. But the 'rights without responsibility' culture is totally relevant – and that culture is slowly killing freedom of choice in hi-fi buying.

Like it or not, the Internet is becoming a major source of product buying and buying decisions, for everything from CDs to motorcars. Much of the corporate side online is perfectly kosher, bound by the same strictures of (relative) truthfulness and corporate honesty as any paper documentation, and the same trading regulations that would apply to any product purchased in a high street store. Unfortunately, another important aspect of the Internet is the online forum, and it's here that things go horribly adrift.

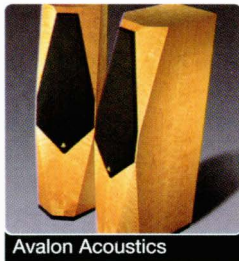
Here's the scenario. Someone with a problem – legitimate or not – with a specific piece of hi-fi equipment can turn something minor into a problem that threatens the company itself. Sometimes this is a good thing – a genuine problem with a hi-fi component, which has been 'buried' by unscrupulous marketing departments, can be exposed as a true flaw and the company can either react to the problem or take its chances with the adverse publicity and poor reputation such arrogance causes. This latter course of action has not been popular among larger companies since Ralph Nader's championing consumerism put paid to wilfully unsafe American cars in the 1960s.

Unfortunately, most of the posting that goes on has little to do with Ralph's altruistic concerns. Much of what appears on forums has more to do with self-aggrandizement on behalf of the poster. The more likely course of events is that someone has a run-in with a company about a product, perhaps a product that is below par, or has broken. Sometimes, the cause of the problem may be the person posting. But, whatever the problem or its cause, the forum poster has taken things personally and looks upon the product, the company and – by extension – anyone who owns or recommends any product that company has ever made, with disdain. Sometimes, this descends into something more serious, as the poster begins a campaign against the company, 'bigging up' their own dissatisfaction by rallying those who are also disgruntled with the company (or even creating other phantom nicknames to reinforce their claims against the company).

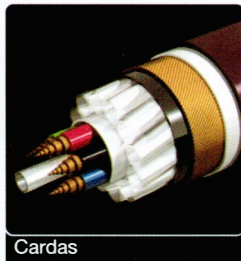
Suddenly, this becomes a self-fulfilling prophecy; one person's unique problem with a product is transformed into a shockwave of bad press against that product. This bad online publicity surrounding the product makes people question their impending purchase of the product, sales drop and the product is changed. This leaves the original poster sure that the reason for the demise of that product line was because the problem itself, not because of their one-person campaign against the product.



*for the love of music...*



Avalon Acoustics



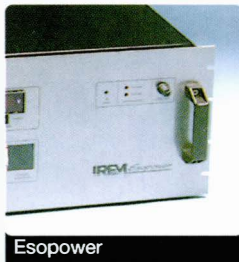
Cardas



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conrad-johnson



Esopower



Tri-Planar



McCormack



Avalon Music Systems



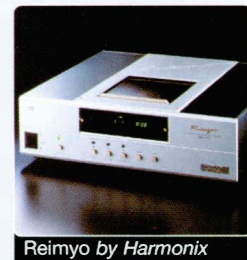
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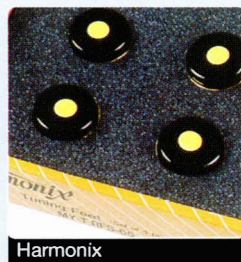
Kuzma



Reimyo by Harmonix



Magnum Dynalab



Harmonix



Acustica Applicata (DAAD)



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► Generally, things are not so extreme. But a comparatively small-scale problem with a product can become a large-scale difficulty for a manufacturer, even if they address the problem. Of course, it's not small-scale if you are one of the owners with the problem, but it seems that even if the manufacturer offers the repair free of charge, this still isn't good enough for the forum's self-appointed titans. They want an act of contrition, too.

It seems that if the person has suffered a problem with the product they own, then the brand should suffer as well. This is what comes of taking things way too personally, unable to understand that the problem product wasn't deliberate (in most cases, anyway). If the company doesn't publicly apologise for the mistake, the person remains disgruntled, even if they now have a perfectly-working product, and will continue to mete out revenge on the company on the preferred forum.

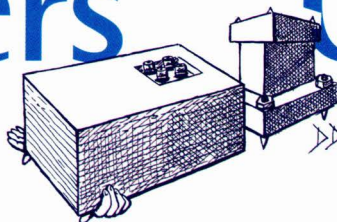
This isn't just limited to hi-fi. A few years ago, a big-name camera manufacturer had a 'problem' with one of its SLR lenses. This specific lens was 'plagued' by oil appearing on its aperture blades, effectively turning a useful chunk of glass into an expensive paperweight. Huge problem, apparently (if you check the relevant photographic forum), but one that was silently fixed a few years ago. Trouble is, finding the lenses that were 'plagued' by this problem is incredibly difficult. If you look on a forum, every single lens of this type made before 2001 suffered an oily doom. Independent repairers suggest a mere handful of lenses suffered an easily-rectified problem and the whole thing was a huge storm in

an online teacup. The big-name brand says nothing, one way or another.

Other companies are not so opaque, but few brands have an entirely transparent approach to their repairs. Perhaps it should depend on the severity of the product problem. Naturally, if the product problem is so severe that it is likely to maim anyone who comes within a metre of the thing, a formal recall is in order. But what about a sticky transport mechanism on a CD player? Perhaps it's better to silently repair the problem when and if it occurs, rather than recalling thousands of players that may not be malfunctioning? Ultimately, it's a numbers game. If 90 % of the products issued last year turn up their toes within six months, the company should recall those last products to be on the safe side.

Should any of this matter, though? Not really; in the main, forum chatter should be treated as an entertaining insight into the psyches of the people chatting, not as a reliable method of discerning the properties of components. In forum-land, 10 people with a problem can make enough noise to be considered an army of the disgruntled with broken products, while the 9,980 other owners are just those who have not succumbed to the problem yet, or lack the discerning ability to recognise when a product is underperforming. Worse still, if you stick up for your unbroken product, you are a liar, a fool, or part of the conspiracy (it's amazing how far anonymity can enhance the cojones of those posting to a forum). Or perhaps, you are all three at once.

# Speakers Corner



by Paul Messenger

First, here's an interesting postscript to the Dali Megaline review, found elsewhere in this issue. The review discusses the theoretical characteristics of a line-source speaker, including the observation that the line's cylindrical waveform leads to very little sound output upwards or downwards beyond the extent of the line.

I made no attempt to check this by suspending myself from the ceiling in the narrow gap above the speakers, but the truth of the line-source's lateral sound radiation pattern

was brought home quite forcefully within hours of dismantling the Dalis and replacing them with a pair of B&W 800Ds. My better half had taken herself off to bed, and soon started complaining that the music from the room below was too loud and disturbing. It didn't seem particularly loud downstairs, and certainly no louder than I'd been playing it in previous weeks.

Then the penny dropped: even though the Megalines had reached within a foot or so of the ceiling



▶ immediately below the bedroom, the sound had avoided travelling upwards, as theory predicts, and stayed resolutely within the listening room. Once they were replaced by the more conventional, point-source B&Ws, the upstairs (and presumably downstairs) disturbance factor was much increased, even though the speaker was now many feet below the ceiling.

The moral of this anecdote is of course that the Dali Megaline is the perfect speaker for wealthy flat dwellers, especially those that like their music late and loud.

Reviewing hi-fi equipment is definitely a pleasant way to earn one's living, but it's not without its fair share of frustrations. As one who specialises mainly in loudspeakers, I'm more fortunate than most, since substituting loudspeakers doesn't really interfere with the rest of the set-up. Others have their systems regularly ripped apart by visitors hoping to get the best possible performance from some particular gizmo.

This might be irritating, disorienting and sometimes ultimately frustrating, but it can also be educational, opening the ears to new and hopefully better ways of doing things. The last two of those experiences have certainly occurred each time Steve Elford has visited with his Vertex AQ bits and pieces. I call them 'bits and pieces' merely because they're so diverse. The terms are not in any way intended to be disparaging, and in fact the various elements represent a complete system, as each element operates in a complementary fashion towards achieving the same basic ends.

The most impressive thing is the way all the products seem to be evolving and improving from one visit to the next. The frustrating bit is that, having got me all excited by putting on a great dem

of, for example, the new Super Kinabalu platform, Steve explained that it was his only sample and he'd promised to take it down to RG for a review elsewhere in this issue.

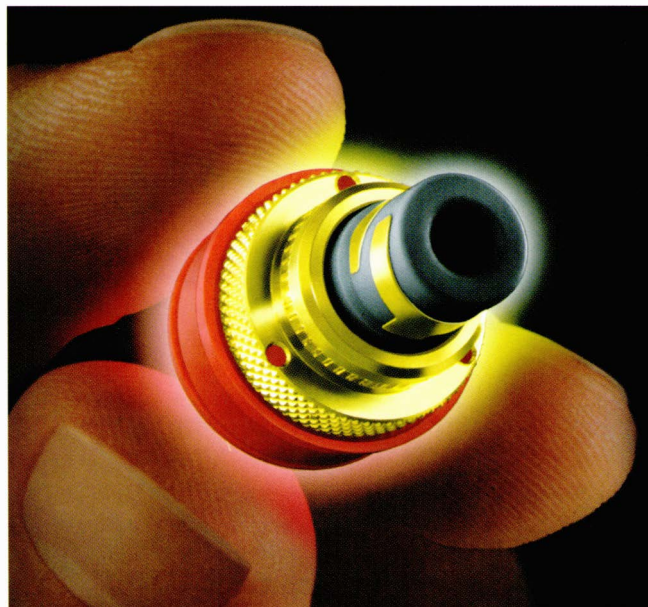
I already use three regular Kinabalu platforms, under CD player, turntable and pre-amp, and the new Super version takes that standard of performance up to a new level, further improving the dynamic range especially at the low frequency end of the spectrum. I've ordered three Super Kinabalus, but don't know how long I'll have to wait, as Vertex AQ is still a very small operation with limited resources. Meanwhile, the guys from Anatek

Audio brought their new pre/power amp combo down the other day, and if it's not exactly the prettiest package I've seen, it sounds quite lovely and seems very good value for money. The full review will have to wait its turn in the queue, but they did introduce me to the delights of WBT's NextGen phono plugs and sockets.

These costly sockets are fitted as standard to the passive but fully remote-control CM1 pre-amp, and I got to borrow a pair of NextGen-equipped phono leads to

connect up my Naim CDS3 CD player. The CDS3 can be configured to use either phono or DIN socket outputs, and has hitherto always sounded better when the DIN socket was used. However, the NextGens were a sonic revelation, giving a clear improvement over my DIN alternative. There was nothing fancy about the actual cable being used to make up this lead, so it's pretty clear that the plug/socket combination is the bit that really matters in maximising the sound quality. It

would seem that the ubiquitous phono socket connection is potentially rather more capable than I'd previously thought possible. ➤





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reviewed: issue 28 - 2003

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# Incoming!

Please address letters to the Editor at Hi-Fi+, Unit 12 Albany Business Park, Cabot Lane, Poole, Dorset, BH17 7BX.  
or via the web-site at [www.hifiplus.com](http://www.hifiplus.com)

Dear Sir,

I was about to purchase some 24 Eichmann Silver Bullets to replace my existing interconnect connectors, which are currently Eichmann gold-plated types.

These I found to be vastly superior sonically to the earlier WBTs, albeit not so fancy in the appearance department!

Incidentally, they are used with my home-grown solid-core 0.6mm silver wire interconnects, which I am generally very pleased with as far as performance goes. Like yourself, I have had no problems with Eichmann Bullets, neither with soldering damage, nor with 'mechanical' failures, providing, of course, one is careful when handling these RCAs.

I only held off this purchase when I read your excellent comparison between the Next Gen (gold plated) WBTs, and the Silver Bullets recently, and I took careful note of all of your comments. Have you yet had the chance to listen to any of the silver WBTs, or will you be doing so in the immediate future, perhaps, as your comments seem to suggest? Clearly, these silver WBTs are even more expensive than either which you commented on, but they do appear to have an advantage over the silver Eichmanns, in that they have 'mating' female sockets, which should hopefully work well together.

Unless you are already of the opinion that the Silver WBTs (together with their female counterparts) were not noticeably superior to the gold-plated WBTs, I guess I will just have to bite the bullet (sic) and go for Silver WBTs (and where possible, convert to silver WBT sockets) in the hope that this will provide a good (if very costly!) long term solution.

Any opinions you are able to share will be very gratefully received, especially if you have already had some experience of these latest WBTs.

I guess you will understand that I would be rather upset if I do go for this option 'blindly', only to discover (in a future Magazine, perhaps soon to be published) that you were not quite so enchanted with the silver versions, maybe, as the gold-plated ones, which you say 'sounded' so good!

Last time we spoke (at one of the Manchester Shows) you you ended up costing me \$800 when you enthused about Max Townshend's Super Tweeters, a decision I have never regretted! I would therefore value any remarks you are able to share right now which might help me make the final decision over these connectors, but, of course, I fully accept

that "the usual caveats apply"!

Apart from the Townshend Maximums (which I blame you for!), and many other tweaks like RDC Cones which are great, I also installed the Incognito tone arm wiring loom in my SME series 5 arm after reading your review. Yet more practical help from you and your Magazine.

Kind regards,

**Bob**

Via e-mail

*The silver NextGens are indeed better still than the Cu version, albeit at a price. It's interesting to note that even that old phonophobe PM has become a recent convert (see his column in this issue) noting the same plug-socket compatibility as you plan to exploit. With your silver conductors, silver plugs and sockets are definitely the way to go and you'll derive the maximum advantage. However, consider this. Where you can't change sockets, or the equipment being connected is outside of the primary chain, it might be worth sticking to the copper version simply on the grounds of cost. Whilst you are clearly aware of the implications of exchanging the connectors on your hardware, I would just point out for others that such a step will certainly void any warranty as well as being somewhat unpredictable in outcome. Having said that, my experience to date with both the NextGen plugs and sockets is sonically superb. Their presence on the £14000 DarTZeel amplifier is no accident. Ed.*

Dear Editor,

Congratulations to your fine magazine, which I discovered about four months ago at a newsstand for foreign journals.

With a collector-friendly, tasteful layout and a language that doesn't always desperately try to be witty and brilliant, Hi-Fi Plus really is quite a comfort compared to other so called "High-End" magazines. But most of all, I was surprised about the courage of your experienced writers in mentioning the shortcomings of a component under review as well as the strong points. In German Hi-Fi periodicals there is only high praise about everything and I'm sick and tired of that kind of "service" for the hi-fi industry.

Besides the reviews, I especially enjoyed the excellent ►

► interviews with David Wilson and A. J. van den Hul. With their statements, both gentlemen proved to be much more than just “hi-fi-designers”. Please keep up these very instructive dialogues with charismatic personages. Suggested candidates for future interviews: William Z. Johnson, Stewart Tyler or Harry Weisfeld.

Best Regards

**Matthias Baumgarten**

Nürnberg, Germany

Dear Sir,

I'd like to tell you and your readers that there is a Swedish HDCD catalogue. It has an English version. There are more than 400 titles added to that database. Many audiophile record companies like this idea and have all their HDCD albums in the database: Linn records, First Impression Music, Opus3, Audio Fidelity, and soon Reference Recordings.

You can find it at [www.hdcd.se](http://www.hdcd.se)

**Thomas Bergman**

Via e.mail

Dear editor,

I need advice on two issues:

My SME 5 will go for service to SME. They offered the option to use their new cable (vdH?) for internal wiring. Do you know what these sound like? (Apparently no good from what you hear through the grapevine, but this information might just be a lot of bulls\*\*t.) Does the new M 2-9 (reviewed by R. Gregory in Issue 31) have these cables?

Your opinion and advice greatly appreciated.

When reviewing the Weiss Medea DAC Jimmy Hughes referred to “upsampling out-puts” on CD transports/players.

Are there currently any (besides Chord and Zanden) that have an 88.2 kHz digital output?

Thanks for your help.

**Fred S.**

Via e-mail

*The easy one first. Besides the transports you mention, I'm only aware of the Weiss and dCS transports (including the new, lower cost one based on the P8I architecture) as having some form of 88.2 kHz output. As no standards apply for the 88.2 data rate there are issues over socketry and interfacing which you may need to consider. But as this looks like becoming an increasingly common option (a sure-fire way of improving Red Book performance with little or no front-end hardware costs) I can only see the choice of transports broadening and a consensus forming.*

*The SME wiring upgrade is well-worthwhile and something I recommend as standard to all purchasers of new SME 5 arms. In fact, the cost of the internal wiring upgrade is slightly lower than that of the lead-out cable (which does even*

*more damage) so I suggest ordering the arm in this form but without the external wire. That way you can use something rather more appropriate. The M2-9 doesn't use the superior internal wiring as far as I'm aware. Ed.*

Dear Sir,

I have long been wondering what you would review if space allowed. Then, in response to Stephen Bishop in Issue 38, you point out that the problem is more involved than that. So my question has become: What equipment (that stands out at its price) would you review in Hi-Fi Plus if you could? I think this would be an interesting exercise because it would round out the hi-fi landscape, giving a better overall picture of what is possible and worth investigating with a given budget.

yours faithfully,

**James Mason**

*Interesting problem this: on the one hand there are certainly products out there that merit attention and which we've yet to see or hear – but on the other, reputation and technology are no guarantee of success when it comes to performance. There are plenty of examples of eagerly awaited components that have then disappointed on audition. As such, the danger is that a list of prospective reviews might get read as a blanket recommendation for the products therein – which rather debases the entire review procedure. No magazine can be omnipotent, however it's prudent to confine ones views to equipment with which you actually have direct experience. It saves on expensive, egggy accidents that normally involve a large amount of someone else's money. Ed.*

Dear Sir,

Well, there I was, listening to a spot of Mozart and innocently reading the “Incoming!” letters in Issue 39 when I came across your reference to Peter Turner's articles in *Hi-Fi Answers* and his three drawer knob trick. This rang some sort of bell and, in a trance-like state, I found myself crossing the room and rummaging through my all-purpose hi-fi sundries cabinet until - voila! - I found it; namely, a copy of my letter to the editor of *Answers*, printed in the “Soundout” section under the title “PT lesson” in response to Turner's “Supporting Act” article in HFA of February 1983. I say again: 1983. Shurely shome mishtake. Nothing wrong with your memory, mate.

Oh yes, just before signing off, I thought you might be amused to hear that I'm still using the same loudspeakers I had then: JBL L110s. Is this a record? The Luxman M-300 amp (dual mono, 40 watts Pure Class A/150 watts Class AB) is also still in place, but now serves solely as a headphone amp.

But that's another story..

Regards,

**Michael Arnold**

Via e-mail





Some Digital and some Analogue news. And, don't forget the upcoming Heathrow Show ..!

Just because we are predominantly an analogue, vinyl based, retailer doesn't mean we don't care about digital. We realise that our customers, much as they love their vinyl collections, still need to play digital media occasionally! It's a pity that SACD never achieved the prominence it ought to have. But then, the choice of music is still very limited. Or, perhaps it's the other way round.

Anyhow, when you get a good recording, SACD can be stunning. You guessed this was leading somewhere, and it is! Musical Fidelity have at last released their new trademark sophisticated choke regulated and CD circuits and their power supplies. Too often, when you buy a really good existing expensive CD player to get the player gets the absolute best out of both



dual purpose machines on the market. Other details include technical specs (signal to noise ratio and jitter) which challenge the resolution of measuring instruments, and the ability to switch between two very high quality output stages, valve and transistor, to keep both camps happy! This is their best digital player yet, and one which it will be very hard to surpass (despite what MF say in their regular newsletters - existing owners know what we mean!) - if you are interested, don't delay in hearing it as I think the limited production run will soon all be allocated. Oh, nearly forgot, the price is a whisker under £4000 -

very good value indeed when you see (and hear) what you get for the money.

Staying with digital, we've just taken delivery of the new "entry-level" Shanling CD player - the CD-T80 at £650 - and what a brilliant player it is. How they manage to make this superbly built unit for the price they do is quite scary. The fit and finish is absolutely top class, what you might expect if you pay double or treble the price, and the sound quality is on a par or better than just about anything else up to a thousand pounds. I'm told the importer is having a problem keeping up with the demand! If Shanling continue on present form, they will be (rightfully) dominating quite a few sectors of the enthusiast hi-fi market. We refer, of course, to their two existing models, the mid-range CD-T100 (£1650) which has been around for ages now but is still very competitive and looks as stunning as ever, and the relatively new limited edition CD-T300 Omega Drive player, featured in our last ad, for £3999. This new, very modern and attractive player is attracting huge interest. Like the Musical Fidelity it is also a limited edition model. If you fancy owning a top class CD player which will have lasting value, superb sound, and totally original appearance, come and demo it before it's sold out.

Our main business, in case you were wondering, is definitely still analogue! And, we have some exciting news on the turntable front. First, the affordable: Michell Engineering editions this month!) turntable, loosely based looks completely different, with a jet black special black version of the acclaimed of the HR power supply. It also has nickel the Orbe. This special model, which only needs stunning looking but very competitively thing is the exclusivity - only 100 pieces are



become collectable. And, sadly, due to copy dates, by the time you read this we suspect there may not be many left, so please phone for current availability.

have released a limited edition (it's all limited on the famous Gyrodec. However, the Odyssey acrylic base, black chassis, clear lid, and a Tecnoarm A, finished off with a black version silver weights, and a clear acrylic spyder like a cartridge to complete it, is not only priced at £2150. But, the most interesting being made. They will almost certainly

The other exciting news is the arrival at our shop of the brand new flagship turntable from Nottingham Analogue, the Deco. This model is about as exclusive as it gets, the price alone will assure that! Mass is very high, and the platter features a unique contoured design to aid energy dissipation. If you want to know more (and hear it) you'll have to pay us a visit.

Also new to Walrus is the Stirling Broadcast LS3/5a loudspeaker. Stirling is only one of two current licensees for this superb, classic speaker design. It might be an old design, but it still beats most other compact speakers, especially since Stirling made some small but important tweaks! Price is a very reasonable £890 to £973 dependent on finish. On demo now, please try to hear before you consider purchasing any other compact speaker.

On to this month's Featured Accessory, the Shure SFG-2 Stylus Force Gauge. This is a very simple well made balance which sells for £28, and will last you a lifetime. It measures tracking weight between 0.5g and 3g. For anyone who regularly changes their pickup this is an absolute must, unless you're rich enough to afford one of the swish electronic gauges such as the Martin Bastin gauge. Even if you have an arm which already has tracking force calibration, the Shure will be a lot more accurate.

Lastly, don't forget the Hi-fi and Home Entertainment Show at Heathrow, from the 23rd to 25th of September. I know it's a long way off, but put it in your diary now! We'll be there with lots of our favourite stuff in room Syndicate 16, feel free to turn up with your favourite LP or CD for a quick demo. See ya there!

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KUZMA

# The Kuzma Stabi XL Turntable

by Roy Gregory

It's a long time since anything really novel appeared in the world of turntables. The Well Tempered Turntable and arm were probably the last great leap sideways and they date back 20 years or so. Not surprising, you might well think, given the rise of the CD, but perhaps you should think again. Okay, so compared to the heyday of 12" vinyl replay, the market for cheap record players once dominated by the Dual CS505 has died and (given the sonic performance of some of the products offered I doubt that it has) gone to heaven. But at the other extreme, vinyl users have become more committed and more dedicated. You might even argue that the market for really top-flight decks has never been so good, with serious (and seriously expensive) vinyl replay components appearing with astonishing regularity.

Part of this is down to the nature of the problem. Building a record player is all about precision, light engineering: exactly the kind of thing that lends itself to small scale, bespoke manufacturing. What's more, the various design paths are so well trodden that would-be producers can adopt an approach best suited to the production techniques on hand. It might be the cynic in me but I do wonder to what extent that accounts for the overall simplification we've seen in record player design in the last decade, typified by the rise of the rigidly coupled deck with a separate motor housing.

It used to be that there were two schools of thought when it came to building a record player. There were those who suggested isolating the stylus/groove interface from both the outside world and the motor, an epistemology that generated the original AR deck, the Thorens TD150 and a whole host of other belt-driven designs with a suspended sub-chassis. The problem was that the combination of a belt and a floppy coupling to the platter made for poor speed stability, something that became rather more apparent (and irritating) once we'd assimilated CD.

Meanwhile, in the opposite corner was the heavy brigade. These guys offered rigidly coupled decks that relied on sheer mass to sink unwanted energy away from the pick-up. The lack of a suspension meant that coupling between motor and platter was excellent (arguably too good in terms of noise transmission) and also allowed the use of really heavy platters whose flywheel effect further added to the superb speed stability. The problem was that in order to really work these decks also had to be really, really heavy and weight (unfortunately) costs.

Of course, in reality there are few truly rigid designs and over the years, both approaches have produced hybrids ranging from suspended decks with heavy platter and sub-chassis structures (sometimes even supporting the motor too) to "rigid" decks that have introduced elements

of loss-y decoupling (a fancy term for rubber feet under the motor housing). Indeed, once you get away from the theoretical ideal of infinite mass, some kind of compliant mounting becomes almost *de rigueur*, until, when you reach the current crop of lightly constructed rigid decks, where what mass there is, is concentrated in the motor housing alone, the deck won't work without it. More sophisticated, medium mass designs often apply constrained layers, but whilst effective in increasing the apparent mass on tap, these do tend to be expensive.

All of which makes the Kuzma Stabi XL something of a rarity – a truly high-mass, rigidly coupled record player. Kuzma of course, started out building suspended designs, although even then they flew in the face of established Euro tradition/fashion by heretically employing four springs and a higher than usual suspended mass. Indeed, the original Stabi is still available. Along with the Stabi Reference, which in combination with the Tri-planar tonearm has been something of a benchmark around these parts for the last few years. The budget Stabi S dispensed with the complexities of sprung assemblies to deliver an astonishing performance from a T-shaped chassis built from solid brass rod and simply decoupled on rubber O-rings. It is here that we find the roots of the Stabi XL, the company's flagship product, ►



▶ a turntable writ-large – in every sense of the term.

Designers and reviewers are keen to talk about form following function, occasionally even dropping in the Bauhaus name for effect. Unpacking the Stabi XL makes you realise just what a cliché that generally is. If simplicity is a virtue then this turntable is heading for sainthood, reduced as it is to the absolute bare necessities of its purpose. To whit, you get a bearing, a platter, a drive system and something to support the tonearm. Oh, and something to stop the bearing and platter falling over. The unusual thing is the extent to which each of these is a separate and discrete element. They don't bolt together, they simply stand beside each other, held in place by nothing more than their mass and the force of gravity.

Building the Kuzma Stabi XL (somehow the term "assembling" doesn't quite cover it) is simplicity itself – assuming you can physically lift the parts. Start by placing the large diameter base section that supports the massive inverted bearing and the yawning trough of its oil reservoir in the centre of a seriously substantial supporting platform. I used the significantly beefed-up HD shelf specially developed for the finite-elemente Master Reference racks, which not surprisingly, proved ideal. I would, however, beware using anything that might flex, because the weight of this turntable is both substantial and concentrated into a surprisingly compact footprint. The base itself is a massive, solid

brass machining with a completely flush under-surface. There are no feet, no inlaid rubber O-ring, no attempt to decouple it in any way. Bear that in mind when deciding how to house the beast. Concrete floors are ideal when used in conjunction with a rigid table or rack, but those with sprung floors (like me) might want to consider a wall shelf. For a permanent installation I'd investigate the excellent new one offered by finite-elemente, given the obvious sonic success of the rack with this deck. However, the first time I installed the deck

no attempt to provide any form of decoupling. The smooth brass undersides of the motor pods allow them to be positioned extremely precisely and this certainly pays dividends in the final sound. Din sockets in the rear of each pod are used to connect the motors to the large, electronic power-supply which in turn provides switching between 33 and 45, along with fine speed adjustment.

Having charged the massive, ruby tipped inverted bearing shaft with oil (both the top and the



reservoir) you now lower the aluminium sub-platter into place.

Not surprisingly this is rather larger than the norm, its huge, inverted central cup giving it the proportions of a thick brimmed stove-pipe hat. That thick brim provides the drive surface for the two belts that each wrap around both motors as well as the sub-platter itself.

Next comes the platter. 110mm thick and laminated from three layers of aluminium and two, thinner layers of clear acrylic, it's topped off with Kuzma's familiar impregnated fibre record mat (although 'surface' would be a better description as it's actually bonded to the platter itself). Oddly enough, whilst it's certainly heavy, the platter is the one part of the ▶

I suffered significant problems with foot-fall. Shifting the rack and really sorting out its coupling to the floor solved the problem, but be aware of the possibility.

The large diameter foot of the central base has arcs carved in either side and these break up its shape as well as acting as locators for the two motor housings. Substantial brass cylinders, these slide in to the recesses, leaving a 2mm gap between the metal parts. Once again there's

▶ turntable that's more manageable than you might expect – partly because of the lack of heavy metal in its construction (made from stainless steel it would be unmoving!) and partly because of sensible engineering. Look carefully at the sub platter and you'll see an angled slope around the base of its central column. The hole in the underside of the platter that sits over that column is oversized, making it simplicity itself to (carefully!) drop it into place. As it reaches the bottom of the column the angled face automatically centres it perfectly around the spindle axis. Having wrestled over the years with the snug fitting bearing housings that feature on turntables like the Clearaudio Master Reference and later VPIs, this arrangement is both so simple and so sensible that it forces me to wonder why some variation on the theme hasn't been seen before?

The platter's central spindle is threaded to accept the one-piece record clamp, and Kuzma supply a choice of two metal discs to tension the record against the platter surface. I found the thinner one perfectly satisfactory, although it's nice to have the option. The review deck ran at perfect pitch straight out of the box and for the duration of its extended stay. The speed never drifted one iota, even with repeated removal and replacement of the deck within the system. Putting the strobe on always produced an absolutely rock stable result, with no wander at all. In this respect the Stabi XL is the only deck in my experience to match the almost eerie, unwavering stability of the Blue Pearl.

And that completes the motor unit.

Just like the motor pods, the arm-tower is a completely separate entity. Once again it's machined from brass, but in this case it's a two-part assembly; the concentric elements running on a sleeve bearing. Around 150mm long and 30mm in diameter it's an incredibly smooth and yet surprisingly rigid element that allows the height of the arm-mount to be wound up and down by a large, knurled wheel set in the outer face of the tower.



The actual arm-mount itself is another lump of solid brass that caps the top of the upper cylinder, held in place by two large allen screws. This allows the user to change arms without having to buy a complete new tower. And yes, the towers are available as individual items, allowing owners to employ up to three separate arms, while their freestanding nature means that any arm length or geometry is easily accommodated.

The front face of the tower features fixings for a device that measures the relative position of its two elements. Once you've got

arm height roughly correct you simply mount the micrometer gauge and zero the digital readout on the circular control panel: turn the large knurled wheel and the display will track adjustments in the height of the armboard (and thus VTA) in increments of 0.01mm across a 13mm range. Now, I've spent considerable time banging on about the sonic benefits of accurate VTA adjustment and the inadequacy of its provision in most tonearms. The problem is not just to provide the facility but to make it simple and repeatable. The arrangement on the Stabi XL does exactly that for any arm, no matter how Luddite its designer.

By now, it may well have occurred to some of you that the Kuzma Airline tonearm, in many ways (both mechanical and financial) the natural partner for the Stabi XL, also incorporates simple, repeatable VTA adjustment. Yes indeed, which is why Kuzma also offer a simple, rigid, one-piece tower specifically for the Airline. Theoretically this should sound even better, as well as being slightly cheaper, than the VTA tower. However, as I'm reviewing the Stabi XL as a universal motor unit, I decided to include the standard arm-tower rather than the Airline specific version. Besides, the VTA tower also allowed me to experiment with the Kuzma Stogi Reference tonearm, which employs the same mounting and geometry as the Airline (and other Linn type tonearms).

On the subject of geometry, and knowing just how critical accurate arm and cartridge alignment is to record player performance, the idea of a free-standing arm-tower filled me with trepidation. I needn't have worried. The high mass and smooth base of the XL's pod means that it can be slid precisely into

► position (it requires a 5mm gap between it and the platter which is easily and accurately achieved by the simple step of positioning a 5mm allen key in the appropriate place and snucking the arm-tower up next to it). Once in place the pod is remarkably reluctant to move. Paranoia had me checking the spacing (and in the case of the Airline, tangency) on a daily basis. Slowly I learnt to trust the tower's inertia; even the massive cantilever provided by the air-bearing and cueing assembly of the Airline failed to disturb its equilibrium.



Slowly I relaxed until now, I check the geometry if I change a cartridge or if I get really clumsy with the arm. Normally it proves to be a waste of effort. For two physically unconnected items, the motor unit and its tone-arm pod certainly enjoy an astonishingly stable relationship.

Normally, about now is where I'd run through the list of equipment that I used with the Stabi XL. However, in this case, that list is so entwined in the sonic conclusions I've reached about this deck that I'll get to the partnering equipment as and when...

There's no disputing the old adage

that all a turntable has to do is turn at the right speed and be quiet. But like most such comments, what appears at first as a simple throwaway line actually reveals hidden depths under closer examination. Well, this Kuzma deck definitely runs at the right speed and it's definitely quiet. Indeed, its absolute speed stability provides an incredibly solid foundation for the musical performance, imbuing it with a positional and rhythmic confidence that is quite uncannily natural. So much so that it ceases to be an issue.

As to quiet, well, there's quiet and there's quiet. I have no empirical evidence regarding the noise levels from the motors and bearing on this deck, but resolution and detail are exceptional,

rivalled only by bi-lateral air-bearing designs like the Versa Dynamics and Rockports. But that's only one aspect of quiet. What about the sound, the voice of the deck? Some record players whisper away in the background, while others chatter and encourage. Some decks nag, quietly but insistently, working their way into your subconscious where others wear their hearts on their sleeves, making no secret of their enthusiasms (the VPIs and early LP12s spring to mind). By far the worst are those decks that mutter, a constant, tight-lipped, humourless

drain on the life and joy in music: dry, clipped and matter of fact they almost dare you to ask for more, secure in the knowledge that they simply can't deliver.

If the Kuzma Stabi XL has a signature it is its absence of signature. So even, top to bottom, is this deck, so absent bands of intrusive colour or a dominant colouration, that it's impossible to ascribe it a definite character or contribution. You can't listen to a deck, only a record player, and the XL was remarkable in the degree to which it revealed or underlined the specific character of partnering products I know well – as well as a few I don't. Which is another way of saying that in each and every case, the sound of partnering components deviated from truth by so much more than the turntable as to totally hide its inherent sins.

Listening with the Stogi Reference arm clearly revealed the purposeful drive and even bass of that arm, its lack of grain but also its slightly shut-in top-end and constricted sound-stage. The strengths were there to enjoy, the weaknesses to be noted. Yet, as revealing and self-effacing as it was, the deck never brought out the worst in partnering equipment or records. In fact, it seemed to bring out their best, so that whilst the lack of top-end air was apparent on the Stogi Reference, the 'table nevertheless led your ear to the impressively deep, sure-footed and powerfully propulsive bass. There was no lag or sloth dragging back the music, no slurring or smoothing of jagged changes in line or hesitations in the rhythm. Shifts in weight, bow-pressure or finger on string were beautifully portrayed, with notes placed by the player, ►



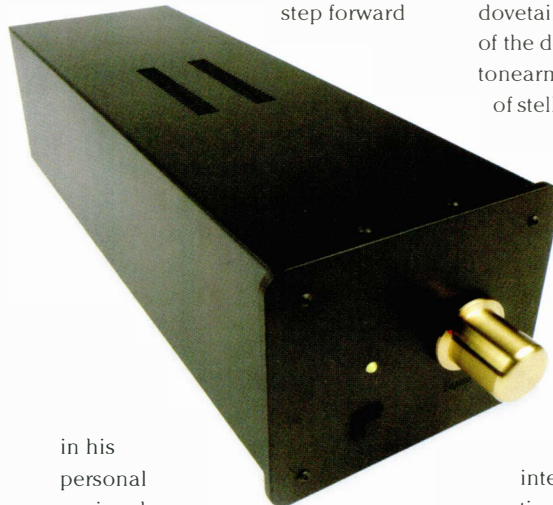
► the expressive slant of the leading edge clear and intact. The absolute stability of the turntable, physically and in terms of speed, provides not only a firm foundation for the rhythm, pace and timing of music, but a solid launching pad for dynamic shifts, no matter how large or small. The energy demanded by the musical dynamics is generated by the physical displacement of the stylus. The Stabi XL offers a good grounding for the stylus to push against!

The dynamic discrimination of the Titan is very familiar, yet on the XL, mounted in the Airline it exceeded even the emphatic performance it achieved in the Triplanar atop the Blue Pearl. Subtle dynamic shadings, the effort and shape that went into the playing became ever more explicit, yet without over-dramatizing or distorting the balance of the performance. My favoured Yepes Rodrigo recording (the Alhambra SCLL 14000) conjured even greater poise and technique from the soloist, his masterful opening to the second movement riveting in its emotional power. The sheer precision of the cartridge was a perfect match for the transparency, dynamic integrity and spatial resolution of the tonearm, the air and depth in the soundstage clear to hear and natural in perspective: Natural too in terms of presence, the vibrant musical energy and its dispersion across the soundstage adding to the reality of the picture.

As much as the Kuzma revealed the true potential in its partners, you still need those partners to possess that potential in the first place. The Stabi XL can't make a silk purse out of a sow's ear, or an Ella out of a Joss



Stone. But pair it with something REALLY special and prepare for sonic bliss. There are certain brands or practitioners that have achieved near legendary status and one is Kondosan. His latest KSL designs – see AudioNote (Japan) and absolutely not to be confused with AudioNote (UK) – mark a huge step forward



in his personal sonic odyssey. When they first reappeared in this country I'll admit to approaching them with a degree of reluctance, founded on experience with the original designs and the subsequent bastardisation

of the brand. However, having now experienced his KSL technology in the shape of the IO-J moving-coil cartridge, associated transformer and phono-stage (the KSL-SFz and KSL-M7) it's safe to say that the Kondo name is back with a bang.

The combination of Stabi XL, Airline and IO-J (which with its 0.1mV output makes using the transformer pretty much mandatory, so hey, let's throw in the RIAA equalisation and MM phono-stage too) redefined my notion of musical assurance and artistic security. As expensive as the Stabi XL is, especially when teamed with the Airline, their cost pales when compared to the £10000 Kondo cartridge and £17000 worth of associated hardware that went with it. But the record player was never overawed in this company. The grace, sure-footed pacing and expressive contrasts of the Kondo set-up dovetails perfectly with the stability of the deck and free dynamics of the tonearm. The supreme confidence of stellar performers (both in themselves and in each other)

became manifest, the music living and breathing at its own pace and in its own time, never sounding forced or hurried. The relationship between sections of the orchestra or between players in small groups was especially clear, the interlacing of their contributions creating a whole that was greater than the sum of the parts.

A large part of that easy assurance comes from temporal security and accuracy; having the right notes appearing in the right place and at the right time relative to each

▶ other. Just listen to Art Pepper's *Smack Up* (Contemporary COP 031) to appreciate just what I'm saying. Listen to the sax pairing the trumpet. Listen to the piano locking step with the walking bass. If you dilute those relationships this record sounds ordinary. If it sounds ordinary to you, think about changing your player, because believe me, on the Kuzma/Kondo combo it sounded truly extraordinary. And sure, so it should; and much of what this record player revealed can be laid at the feet of that £10K cartridge; but don't underestimate the contribution of the 'table and arm. The firm footing that delivers those musical goods comes from there, as does that sense of space and place.

The incredibly secure foundation delivered by this player was further underlined by both its security through massive orchestral climaxes and its ability to encompass the range from solo voice to full orchestra in overdrive. What's more, to do it without fuss and without apparent strain. Few would argue that the Overture to the RCA Soria *Carmen* provides a stern test, but what really impressed was the way the Stabi XL was equally at home across the whole range of scales and emotions on show throughout the first act. From the power and impact of the opening, across the swift shifts in mood that characterize the Overture, the turntable scales the performance beautifully as it spirals in on the square, the soldiers and eventually the solo voices. The over-lapping

ranges of bass, baritone and tenor are effortlessly separated, the diction of the street urchins beautifully resolved and understood. Likewise, where many 'tables run the words of the cigarette girls together, here they are revealed in all their seductive coquettishness.



Here too are the emotional contrasts, the wistful youths, cheeky urchins, the knowing Morales and indifferent José.

Oh, and not forgetting the fabulously smouldering Carmen. Her gradual advance across the stage, bearing down on the hapless Don José is made all the more menacing by the explicit staging, the contrast between the apparently jokey lyric and the threatening emotional subtext carried in the instrumentation. The ability to truly encompass dynamic range in combination with superb timing and harmonic resolution is what unlocks the emotional intent in a composition and a performance. The Kuzma Stabi XL delivers exactly those qualities when paired with equally expressive partners.

A large part of this player's sheer

assurance comes from its uniform transparency. Where many turntables can deliver superb focus and separation across the mid-band and treble, only the best maintain that quality into the nether regions. The Stabi XL lets you here not just the leading edge and placing of a bass note, but its overall shape, the nature of its energy, its texture. Pitch is never in doubt because for once you can hear below the notes, the shape of their underside as the float and breath, rather than the wobbly, earth-bound humps and lumps we all too often learn to accept.

This bottom-end is crucial to really appreciating the performance of the deck, because so much else flows from it. The energy and substance, the believable presence of midrange instruments, the impact of mid-bass dynamics and the volume and stability of the soundstage are all founded on the superb control and discrimination of bass energy. Listen with less than full-range speakers as so many of us do and the qualities of the Kuzma will still be there;



it will just be harder to understand what it's doing that's so different and how it's doing it. I loved this deck with the Living Voice OBX-R2s, but it was the arrival of the Nola Pegasus that really revealed it in all its glory. ▶

► What has quickly become apparent is that the lack of any identifiable colouration makes the Stabi XL invaluable in pinning down the character of cartridges. The calm assurance of the Kondo IO-J is unmistakable, as is the spot-lit clarity of the Titan. But it was introducing the Koetsu Jade Platinum into the equation that made me realize just how finely wrought and subtle these individual works of audio art really are. On the face of it, the IO-J and Koetsu inhabit similar sonic ground. Neither is overly explicit or obviously detailed. Both are rich in tone and redolent with harmonics. But run them in the XL/Airline set-up and you soon realise that their presence and substance come from rather different treatment of the musical energy. The Koetsu is much more fundamentally solid in nature, the Kondo defter, teasing the beauty from the harmonic balance rather than the vivid colours of the raw musical energy. But whereas the extra life of the Triplanar or VPI adds an explosive touch to the Koetsu's presence, the XL reveals it as a softer, more reflective and less showy performer; or to put it another way, more of a Koetsu. Each in its way is sublime; I only wish I could afford both. Which is as good a way of endorsing this turntable as any that springs to mind.

However, there are caveats to use of the Stabi XL. Be aware that whilst aural wonder is available on tap, the deck also clearly reveals when things are less than wonderful. The gap between the sublime and the so-so really is ridiculous, placing demands on the listener you might not want to entertain. Once you've heard records with the VTA just so, you really notice when it isn't. Buy this deck and you will be adjusting VTA for each and every record! The good news is that it's quick, easy and so obvious that a little

bit of practice rapidly makes perfect. However, unless you are prepared to make that commitment you might spend a lot of time wonder-ing quite why I got so excited about this 'table. Likewise, those products derived from the compensation culture of two wrongs trying to make a right will be cruelly exposed. If a tonearm's great strength lies in its



dynamic life and zip (the perfect antidote to less than demonstrative decks) then it might end up sounding quick but thin on the XL. A strength is a strength, and the big Kuzma plays to its partner's strengths, even when they're out of proportion.

That aside I've no qualms about this deck. There really is nothing that it does badly and many things it can do that challenge the limits of my experience. It's smaller in footprint than the competition. It's capable of taking multiple arms, including the Airline, and that in itself is a significant advantage. It's mechanically stable and totally fuss free, delivering its performance, with aplomb, day in and day out. The VPI TNT6 is arguably more enthusiastic; the Blue Pearl certainly costs more; the Clearaudio is more dramatic; but no other deck I've used retreats so completely yet effectively into the musical background. It's an

absence that, as you get used to it, definitely makes the heart grow fonder. It's an absence that allows the music to step forward, free of limitation. It opens the way for the cartridge builders' art to bloom into full flower. Maybe the ability to run at the right speed and be quiet really is all a turntable needs to do. Maybe, just maybe that's exactly what the Stabi XL achieves. ►+

#### TECHNICAL SPECIFICATIONS

Type:	High-mass, rigid motor unit
Drive:	Rubber belts (two)
Motors:	Two
Speeds:	33 and 45, electronically selected and fine tuneable
Lid:	None, platter protector provided
Tonearms:	Up to three
VTA Adjustment:	Integral to arm tower, with variation readout accurate to 0.01mm
Dimensions (WxHxD):	400x320x320mm (with one arm tower but excluding tonearm)
Weight:	80kg
Finishes:	As shown (all black to special order)
Prices – Stabi XL:	£10,500

**UK Distributor:**  
Audiofreaks  
Tel. (44)(0)20 8948 4153  
Net. [www.audiofreaks.co.uk](http://www.audiofreaks.co.uk)

**Manufacturer:**  
Kuzma  
Net. [www.kuzma.com](http://www.kuzma.com)





Power

CD1

CD2

Ph/Aux1

Aux2

Tuner

Aux3

VTL

# The VTL TL7.5 Reference Line Pre-amplifier

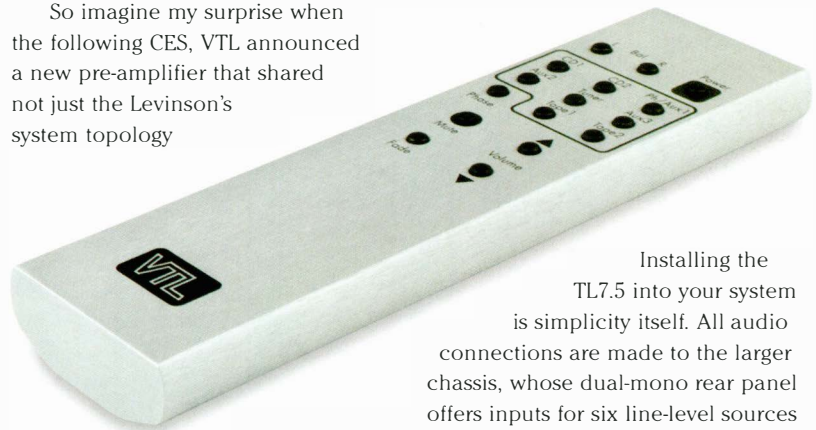
by Roy Gregory

It's been a long time arriving but VTL's TL7.5 line-stage is a product that I've pursued unusually doggedly, not least because it represents so many firsts in my personal experience. Physically impressive (to say the least) the elegant exterior conceals more than a few surprises, and the care that's gone into the appearance and presentation is more than mirrored by the considerable thought that's gone into the circuitry. In many respects this is a landmark product, not just for the company but for the US high-end as a whole. That's a pretty bold statement to throw down this early in a review. Read on and you'll see just why VTL's flagship line-stage deserves the accolade.

For me, this story starts around five years ago and with a very different product indeed. When Mark Levinson Audio Systems launched the No.32 Reference pre-amplifier, it adopted what was for me, a totally novel system topology. An outwardly conventional two-box unit, one blank box and one laden with controls and a display, the natural assumption was that the large bland chassis contained the power supply while the audio and control circuitry was in the slimmer box with all the knobs. Not so. In fact, the audio circuits were located in the featureless chassis while the potentially noisy power supplies and control/display circuitry were isolated in the "active" portion of the pair. It's an arrangement that makes considerable sense but one that's only become workable with the development of software driven,

micro-processor control circuits. That same software also allowed an unprecedented level of user control over the unit's configuration and user interface. It was a mightily impressive piece and it sounded exceptional too, especially when used as part of the full Levinson reference system, its natural habitat. Yes – it left a lasting impression.

So imagine my surprise when the following CES, VTL announced a new pre-amplifier that shared not just the Levinson's system topology



but also its fully differential circuitry and user friendliness – but using valves! Well, actually to be more precise the TL7.5 is a hybrid circuit, but it still represented an ambitious step-change from a company that had previously stuck firmly to the traditional when it came to styling and presentation. Here was a sleek, sculpted and beautifully engineered casing in ultra-modern pale aluminium, offering not just the appearance but the usability of the most sophisticated solid-state designs combined with the audiophile credibility of valve circuitry. What's more, discussing the project with

Luke Manley of VTL, it became clear that he viewed this not just as a new product, but more properly, a new paradigm for valve equipment. It says on the manual "Making tubes user-friendly" and he's not kidding. If, by the time you get through this, you think the 7.5 is impressive, just read the side-bar about the S400 power amp.

Installing the TL7.5 into your system is simplicity itself. All audio connections are made to the larger chassis, whose dual-mono rear panel offers inputs for six line-level sources (four switchable between balanced and single-ended, the other two single-ended only) two tape loops with monitoring and two pairs of outputs, again both balanced and single-ended. A large, multi-pin connector carries DC power from the power supply chassis, while two large SCSI edge connectors carry the DC control signals for left and right channels. The audio power supplies are all fully regulated, and run from a constant current source in order to ensure that the two halves of the differential circuit receive identical feeds. In total, there are three separate transformers supplying the eight, regulated feeds to the audio



► circuit (there's another separate transformer for logic, display and trigger supplies). The gain stage employs ECC83 valves, each one shared between the plus and minus sides of its channel topology. (If less overall gain is required then ECC82s can be substituted, although in my experience quality examples are hard to find.) This arrangement allows the use of minimal feedback whilst achieving a 100kHz bandwidth with in a 1dB limit. Where the TL7.5 breaks with tradition is in using a Mosfet output stage, acting as a current/buffer. The high current linearity and low output impedance of these solid-state devices allows the output stage, specially configured to ensure symmetrical clipping of the signal if it does reach saturation, to swing 30V independent of the impedance it sees.

In turn, this means that the TL7.5 should be easily capable of driving long leads and all but impervious to matching limitations.

But despite the outstanding technical performance the circuit topology is characterised by its simple, symmetrical elegance. A key part in the development process was the creation of the precision resistor array used for the volume control. Operated by instrumentation relays it provides 95 discrete 0.7dB steps. However, due to its software driven operation it actually represents three controls in one, by also providing

balance and input sensitivity adjustments. Thus, instead of the signal passing through anything up to three separate rotary contact tracks, these functions are isolated to a single, discrete, hard-wired precision resistor. It's a classic example of something that is far more complex in material and overall terms actually delivering a far cleaner and more direct signal path. What's more, because all the

circuitry with both magnetic and mechanical protection. Even so, the board carrying the valves is further suspended to provide additional protection from microphonic degradation. The casework is available in silver or black, but the latter loses the attractive contrast provided by the offset display panel on the power supply chassis, a necessary visual relief for what are substantial and otherwise visually imposing units. It's no accident that it was the silver finish that arrived for review.



software and display circuitry is in the power supply chassis, it never gets anywhere near or has the opportunity to interfere with the audio circuits. The volume control links directly to the gain stage and that in turn is direct coupled to the output buffer; and that's all she wrote – so you don't get much more straight-line than that.

The attractive casework is also much more than just a pretty face. The heavy-duty aluminium panels and extrusions are carefully combined to provide the internal

Once everything is hooked up, it's time to configure the pre-amplifier, a scary sounding process which couldn't actually be much easier. Using the front panel buttons on the control chassis you set-up each input in turn. Keep the button pressed and it switches between balanced and single-ended, as indicated by its matching LED (blue for balanced, green for single-ended). Press the ►



## The long and winding road... Or, how VTL got to where they are.

VTL (or Vacuum Tube Logic to give them their full title) started under the auspices of South African tube maven David Manley, who had a solid background in pro-audio engineering and studios. Arriving on the UK scene in the late '80s, those first VTL amplifiers established the no-nonsense engineering principles that still underpin the brand today. Indeed, evolved versions of most of those early designs still exist in the company's product range. Moving on to America, the parallel Manley brand was established, initially to service the pro market. Differences over the direction the company and its products should take eventually led David's son, Luke Manley, to buy out VTL, leaving his Father and then wife, Eveanna, to run the Manley brand. It's a split that has seen VTL follow the path of performance

and user friendliness to the birth of a new generation of products represented by the Siegfried mono-blocs, S400 and TL7.5. Whilst these products are unashamedly high-end and high-price they also represent high-value, in as much as that concept survives in the high-end. If they're too rich for your wallet, at least you can expect the auto-biasing, valve monitoring and operational interface that features so largely in these products to spin down the range, along with updated aesthetics, starting with the TL6.5 but going way beyond that.

Meanwhile, Manley senior had moved on again, this time to a recording studio in Paris, leaving Eveanna to run the Manley brand. The resulting, striking designs have brought an element of 50's retro biker-chic to the industry, but offer a stark contrast to the high-technology precision targeted by VTL and it's hard to imagine them competing for the same customers.

The sensibly proportioned remote control handset provides buttons for all operational functions including balance, mute and fade, the one option not present on the front-panel. This simply reduces volume to a pre-set level rather than killing it completely. The front-panel monitor/processor button is also absent, a sensible precaution given the possible consequences of inadvertent operation at high levels. Likewise, re-configuring the input sensitivities etc. is not possible from the handset. All this, like the rest of the TL7.5, makes perfect sense. In fact there are only two things missing: the user configurable alphanumeric display that means you can label inputs (a spurious feature that seems attractive but is in reality unnecessary and superfluous) and a mono button. The latter I would like, but this is far from the only high-end pre-amp without one.

I have to say that I really like the way this unit looks, operates and feels. Whilst the appearance is a matter of personal taste (no one has yet been less than complimentary) the operational flexibility and domestic acceptability set new standards for valve equipment, while the user interface simply sets new standards full stop. But the really interesting thing is the cost. £9000 is a long way from being a bargain price-tag, but considering that you are getting an imported, genuinely flagship product that arrives in two rather than one expensive chassis, and comparisons to the competition suggest that it definitely represents excellent value. VTL's TL7.5 is yet another indication that the US high-end manufacturers are starting to get real when it comes to the price and performance of their latest products. With a one-box TL6.5 waiting in the wings, suddenly top-flight valve performance no longer costs you the earth or operational

▶ button and simultaneously turn the volume control and you increase or decrease the input sensitivity, the large numerical display clearly showing exactly what you are doing and by how much). If you aren't using one of the inputs, press its selector and the mute button at the same time and you defeat it, preventing it acting as a source of spurious RF or other interference. Likewise, the tape inputs can be configured as straight line-inputs or loops, you can set any input for unity gain and the absolute phase of the unit can be reversed – all just as simply as the inputs are configured. Once you've set it up the way you want it, power the unit down to standby using the front-panel button and it saves all your settings, even if the TL7.5 is disconnected from the mains.

The control software also takes care of several important house-keeping duties. There's a 90-second soft-start period on switch-on which is counted down by the front-panel display (you can switch the

countdown off if it irritates). As well as monitoring the status of the power and control links (shutting the unit down if any discontinuity or anomaly occurs) it also allows the user to configure up to four 12V trigger outputs allowing central control of remote system components or integration into a Crestron-type centralized command set-up. An external IR remote input means that a separate remote relay can be used should you want to control the unit from another room or conceal it in a cupboard. In fact, I can safely say that I've never used another product with this level of versatility that is so easy and intuitive to operate. Read the manual once and I doubt you'll need to refer to it again unless it's to perform some truly weird operation on a once-only basis. Even then, the instructions and action itself will be simple and straightforward. The manual itself is a model of clarity as is the front-panel control layout, and the fit, finish and feel of the controls and casework are all absolutely first class.

► flexibility and consistency. It's a grown-up product for grown-up systems at a price that real grown-ups (rather than just psychotic audiophiles) might actually consider. If Luke Manley set out to drag valve design into the 21st century then he's certainly succeeded, at least on the functional side. Fortunately, the sound of the TL7.5 is just as impressive as its operational credentials.

understated initial impression is down to two things: it makes no effort to play the sonic spectacular card, and what it does it does so effortlessly as to be unobtrusive. What these twin pillars add up to is a performance that is astonishingly convincing because it's simply so natural, and is so natural because of the ease with which the unit encompasses the dynamic and spatial envelope of the musical event.

Far from the bloated bass and muscle-beach dynamics,

disappearing on the next record I played. Time and again the "house sound" of recordings was rendered more obvious than any sound imposed by the system itself. Likewise the character, technique and style of individual performers was more consistent and apparent than normal. Ultimately, there is a sound that goes with the TL7.5 and I'll return to it later, but it's more to do with omission than commission, what it lacks rather than what it adds.

I used the VTL line-stage with a range of partnering equipment, facilitated by the sensibly (necessarily) extended review period. Yet

ironically, whilst enjoying its performance with the Hovland Sapphire and the Tom Evans Linear Bs, both of which it drove, long cables or short with perfect aplomb, there was no escaping the fact that the single-ended connection necessitated by both these amps diminished the TL7.5's performance. Enter VTL's matching S400 power amp which offers a choice of single-ended or balanced connection and a marked sonic preference for the latter quickly emerged. Now whilst a degree of synergy between matching components from a single manufacturer is to be expected, in this case driving the S400 single-ended offered little or no advantage over the performance of the Hovland Sapphire, which always sounded quicker and more agile. But switch



However, before you reach that conclusion a period of readjustment might well be necessary. Indeed, having been wowed by the superb presentation, substantial build and user-friendly operational qualities of the TL7.5, you might well expect more of the same from the sound – in which case you'll most likely be rather underwhelmed. Until, that is, you revert to whatever line-stage was previously in use. That's when you realise that the VTL's rather

spot-lit hyper detail and separation levels that place individual instruments in musical quarantine that so often characterize high-end wanna-bes, the TL7.5 is unforced and unexaggerated from bottom to top, as near totally even in its treatment of the entire audio bandwidth as anything I've heard. Time and again I thought I'd pinned down a hint of character, a tonal shading too far, only to find it

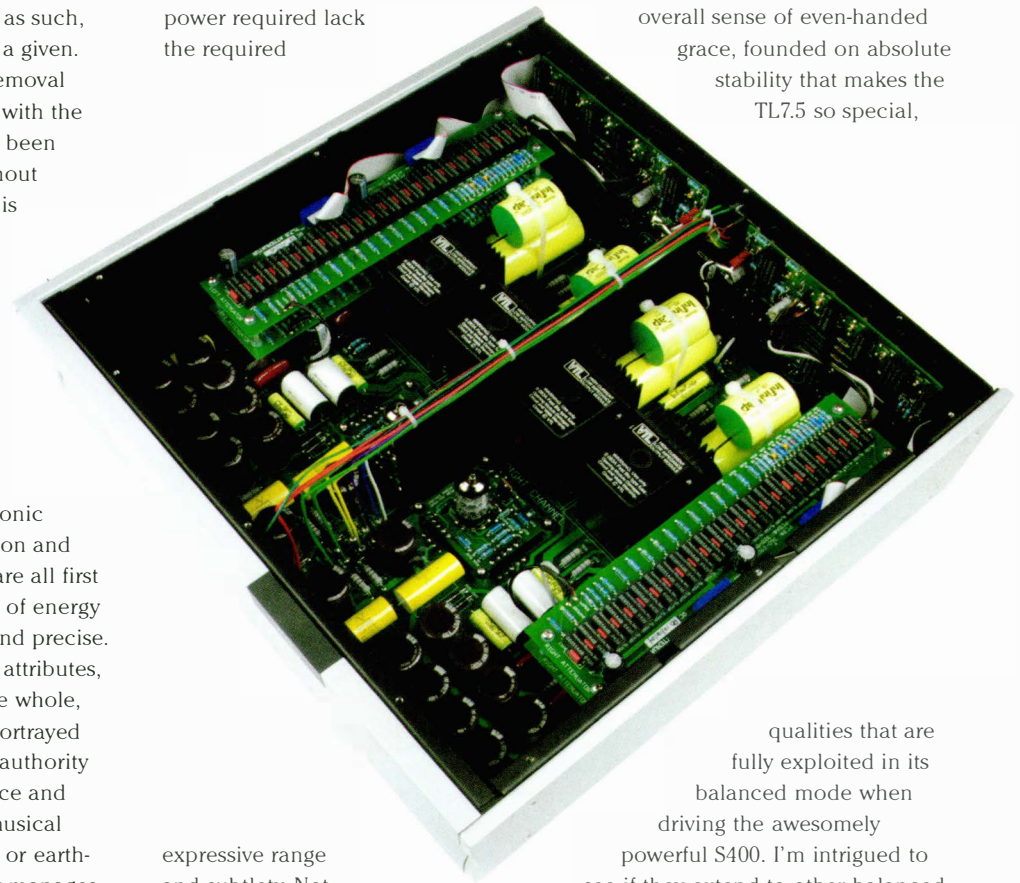
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► the sound was transformed, gaining a stable footing, increased resolution, separation and harmonic definition. But what these added up to in combination was a much more stable and clearly defined soundstage, one with a clearly audible floor. And just as the individual images locked into place, the dynamic energy in the music gained a new sense of solid foundation. The end result was an authority in the performance that was both complete and unquestioned; you didn't really notice it as such, but simply accepted it as a given. Which is what made its removal from proceedings (along with the TL7.5) so shocking. You'd been enjoying the benefits without even realising, so artfully is the performance balanced.

Of course, such a convincing portrayal of events musical speaks volumes about the line-stage's ability to resolve and arrange information. Detail, harmonic definition, spatial resolution and intra-instrumental space are all first rate. Likewise, the scaling of energy levels is extremely even and precise. But what blends all these attributes, binding them into a single whole, is the delicacy of touch portrayed by the TL7.5. Despite the authority of the musical performance and absolute stability of the musical picture, this is no muscle- or earth-bound pre-amp. Instead it manages to maintain the individual fragility of the instruments, the deftness of the playing, while at the same time instilling the performance with substance and direction. The chemistry so apparent within the LSO and between orchestra and conductor as Monteux directs them in the *Enigma Variations* (a US pressed Living Stereo, LSC-2418) is beautifully

portrayed. The work, with its combination of individual instrumental parts, broad expressive range and surging orchestral climaxes demands lively playing mixed with restraint, delicacy mixed with real power. It's a piece that perfectly embodies and presents the considerable capabilities of the VTL. The complex scoring in the bass is both particularly effective and clearly revealed, not always the case. All too often, systems that deliver the weight and power required lack the required

Speakers Corner re-issue of *The Best Of Little Walter* (Chess LP-1428) delivered really satisfying pace and drive from the simple structures and wicked harp licks. The poise and harmonic complexity of the guitar lines was beautiful, while instrumental body and separation on this mono recording were both superb. The VTL clearly doesn't depend on its frequency extremes to impress, but keeps them in natural balance with the all-important midrange. It's the overall sense of even-handed grace, founded on absolute stability that makes the TL7.5 so special,



expressive range and subtlety. Not the TL7.5, whose low-frequency footwork is sure and precise as well as perfectly weighted. Nor does it run out of steam, as the ramped crescendos that drive the Gladiator OST amply demonstrate (in every sense of the words).

That substance isn't bought at the expense of mobility either. Playing the

qualities that are fully exploited in its balanced mode when driving the awesomely powerful S400. I'm intrigued to see if they extend to other balanced amplifiers, but that will necessitate a return visit, as for the most part it's a technology that's left me cold. Interestingly, the other units in my experience that have succeeded with balanced connection have all been fully differential, just like the VTL. It's just that none of the ones I've come across before involved valves in their circuitry...



► So, that all sounds pretty good: natural tonality with no intrusive aberrations, a balanced combination of delicacy and breathtaking power (although the S400's doing its bit in that regard), stability, substance and a beautifully defined soundstage. It adds up to a relaxed yet compelling performance, one that never presses forward, yet never sounds hurried or lacking in purpose. Sit back and enjoy, because that's exactly what the VTL invites you to do.

So where's the flaw? Well, it's not so much a flaw to be honest, more a perspective. The one thing the VTL lacks is immediacy, the sudden quality that identifies the live event,

the ability to track sharp leading edge dynamics. So whereas the florid swagger of a Ricci is easily differentiated from the poised, lyrical precision of a Milstein, the frisson of his bow-work, the actual energy that he puts into his playing is not quite as apparent as it is with The Vibe. Likewise, whilst the instrumental separation, stability and focus that goes with the Yepes *Concerto De Aranjuez* (Alhambra SCLL 14000) is fabulously rendered, the effort that goes into his shaping of notes and phrases, the palpable presence and tension within the soundstage are not as clearly defined as with the hair-shirt device. Interestingly, whilst

the instrumental identities are superbly defined, the independent contribution of instruments doesn't match the superb performance in this respect of the conrad-johnson ACT2.

What we're talking here is the last vestige of micro-dynamic life, the ability to map tiny shifts in level or the angle at which a string is struck. As I said before, the VTL scales dynamics perfectly, but just as no system matches the dynamic range of real life you've a design choice to make. Either keep things linear across the available range, or go for maximum micro-dynamic expression and tolerate compression (and its impression of volume) ►

### It's big and it's smart... The VTL S400 Reference power amp.

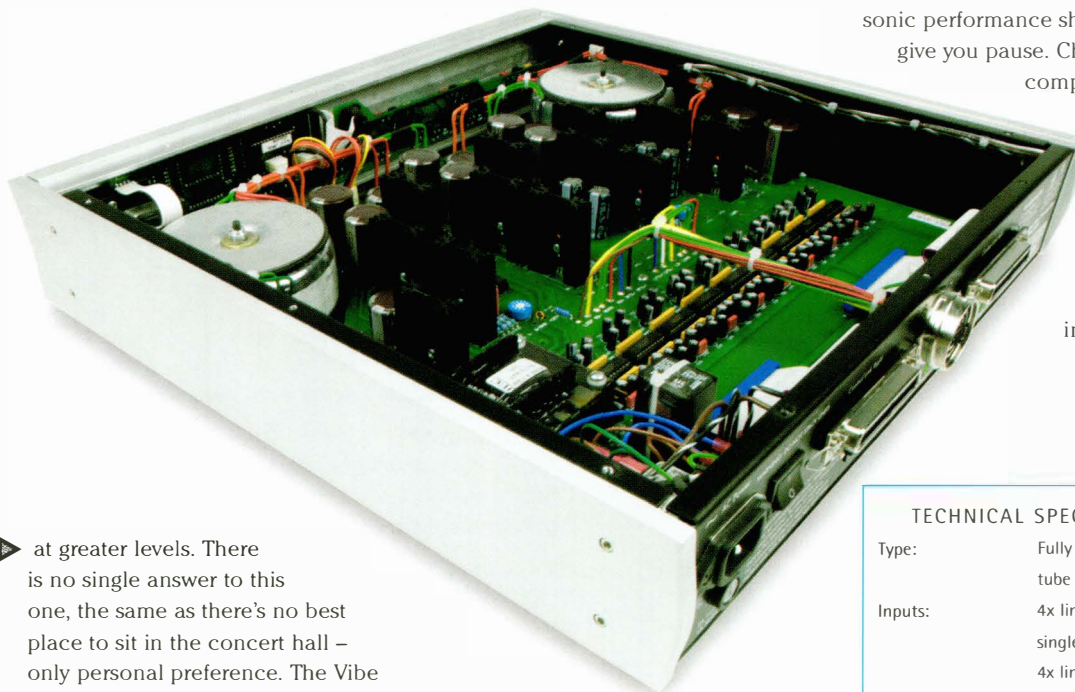
As impressive as the TL7.5 Reference pre-amplifier is, to understand just how serious VTL really are about making tubes user friendly, you need to look at the S400 power amp. High-power tube amplifiers have always been amongst the most problematic of high-end components, the combination of complexity, fragility and sheer electrical potential making failures depressingly frequent and frequently catastrophic events. I well remember running across one distributor, proudly running the latest, highly touted 200 Watt Class A mono-blocs at a show. "That's brave!" I quipped, knowing the reliability record of the amps involved. Without a word he walked over to the substantial sideboard and opened one end to reveal it packed with MO KT88s. "One show's worth..." came the reply. The S400 doesn't look like a valve amp - and it certainly doesn't act like one. The tall, elegant chassis calls to mind the Levinson 33H, while the soft touch logic controls and sophisticated display further suggest solid-state internals. Nothing could be further from the truth. A fully balanced tube input stage feeds a long-tailed differential phase splitter and six 6550C output



tubes a side. The massive power supply is fully regulated and contains a reservoir capacitance that Kent would kill for - if only it contained water. The end result is a rated output of 300 Watts into 8 Ohms. If that isn't sufficient for your purpose, the visually identical Siegfried mono-blocs double that!

So far, fairly familiar. But what sets the S400 and Siegfrieds apart is the "Smart Tube" logic control circuitry. This governs every aspect of the amplifiers operation. Hit the power switch and the amp enters a four-minute start-up programme (thoughtfully counted down on

the front panel display - defeatable if you can't stand the show) during which the valves are brought up to operating voltages and the condition and bias of each one individually assessed and optimized. This alone guarantees an extended working life from the bottles. But Smart Tube goes further; it monitors the condition of each valve during operation, shutting down the amp if a fault occurs. It even indicates the nature of the fault and which tube needs replacing. It then, naturally enough, re-biases the new tube. Of course such sophisticated software driven circuitry allows a host of other options. The amp monitors its temperature, indicates its absolute phase, calculates the total running time for the unit as well as the running time for the current set of tubes. It will even give you individual bias values for each tube so that you can monitor their condition and calculate precisely which ones need replacing and when. It makes running this big tube amp as easy as running the 33H it so resembles and that's saying something! There's even a separate fuse testing circuit, and you don't get much more user friendly than that. However, there is one hole in the S400's armour; it weighs in at a distinctly unfriendly 100kg, which means it's just as hefty as the 33H too. Clearly, sheer mass is one practical consideration that's beyond even VTL.



sonic performance should certainly give you pause. Cheaper than the competition and

doing the functional thing so much better, VTL's TL7.5 Reference is a landmark indeed. ➤

▶ at greater levels. There is no single answer to this one, the same as there's no best place to sit in the concert hall – only personal preference. The Vibe sits you front and centre, almost on the stage, truth be told. The TL7.5 sits you a third of the way back, with the c-j in between.

It's a perspective that is rooted in the stable, relaxed control and integration that comes with the balanced connection. Go single-ended and you get a little extra life and zip, but the losses easily outweigh the gains. The question bugging me is to what extent that lack of immediacy is coupled to the sheer power lodged in the imposing bulk of the S400? A balanced input Sapphire is an enticing proposition indeed. Until I lay my hands on one, or something similar, your guess is as good as mine...

In the meantime, the VTL TL7.5 offers a performance that makes it a match for any of the full-function line-stages out there. Indeed, it takes a stripped down hot-rod like The Vibe or the Connoisseur to reveal even partial shortcomings. As it is, the VTL leans more to the whole than the individual, the orchestra rather than the solo instrument. If you listen to whole works or whole

albums rather than chopping and changing, if you want coherence in a performance rather than to marvel at its constituent parts and above all if you want to listen for extended periods the TL7.5 is capable of delivering a revelatory experience. Nothing gets away from it, no instrument escapes the orchestra, nothing wanders or appears where it shouldn't. Few systems can scale the majesty of a full orchestral crescendo while still maintaining the position and individuality of instruments; more often than not that's the fault of the pre-amp. Well, not if you're lucky enough to be using this one. It's relaxed yet controlled, superbly detailed without being musical dissective. It's astonishingly truthful to the performance as a whole, which is why it delivers such enormous musical satisfaction. And it does all this without you noticing, without even appearing to try. Even if the versatility and user interface doesn't sell you, the

#### TECHNICAL SPECIFICATIONS

Type:	Fully differential, vacuum tube line-stage
Inputs:	4x line-level (balanced or single-ended) 4x line-level (single-ended only)
Input Sensitivity:	Individually variable for each input
Input Impedance:	<20kOhms
Gain:	20dB
Output Impedance:	150 Ohms max.
Outputs:	2x balanced main out 2x single-ended main out 2x single-ended tape out
Maximum Output Level:	30V
Dimensions (WxHxD) –	
Audio Chassis:	443 x 140 x 440 mm (+ connectors)
Power Supply:	443 x 90 x 440 mm (+ connectors)
Weights –	
Audio Chassis:	16.5kg
Power Supply:	14.5kg
Finishes:	Silver or black
Price:	£9000
<b>Distributor:</b>	
	dCS Ltd
	Tel. (44)(0)1799 531999
	E-mail. <a href="mailto:dsteven@dcsLtd.co.uk">dsteven@dcsLtd.co.uk</a>
<b>Manufacturer:</b>	
	VTL Amplifiers Inc.
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Paul Messenger - Hi-Fi Choice

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"Like Ockham's razor, the Xen seems to cut away dressing, getting at the principle melodies of the music."  
Andrew Harrison - Hi-Fi News

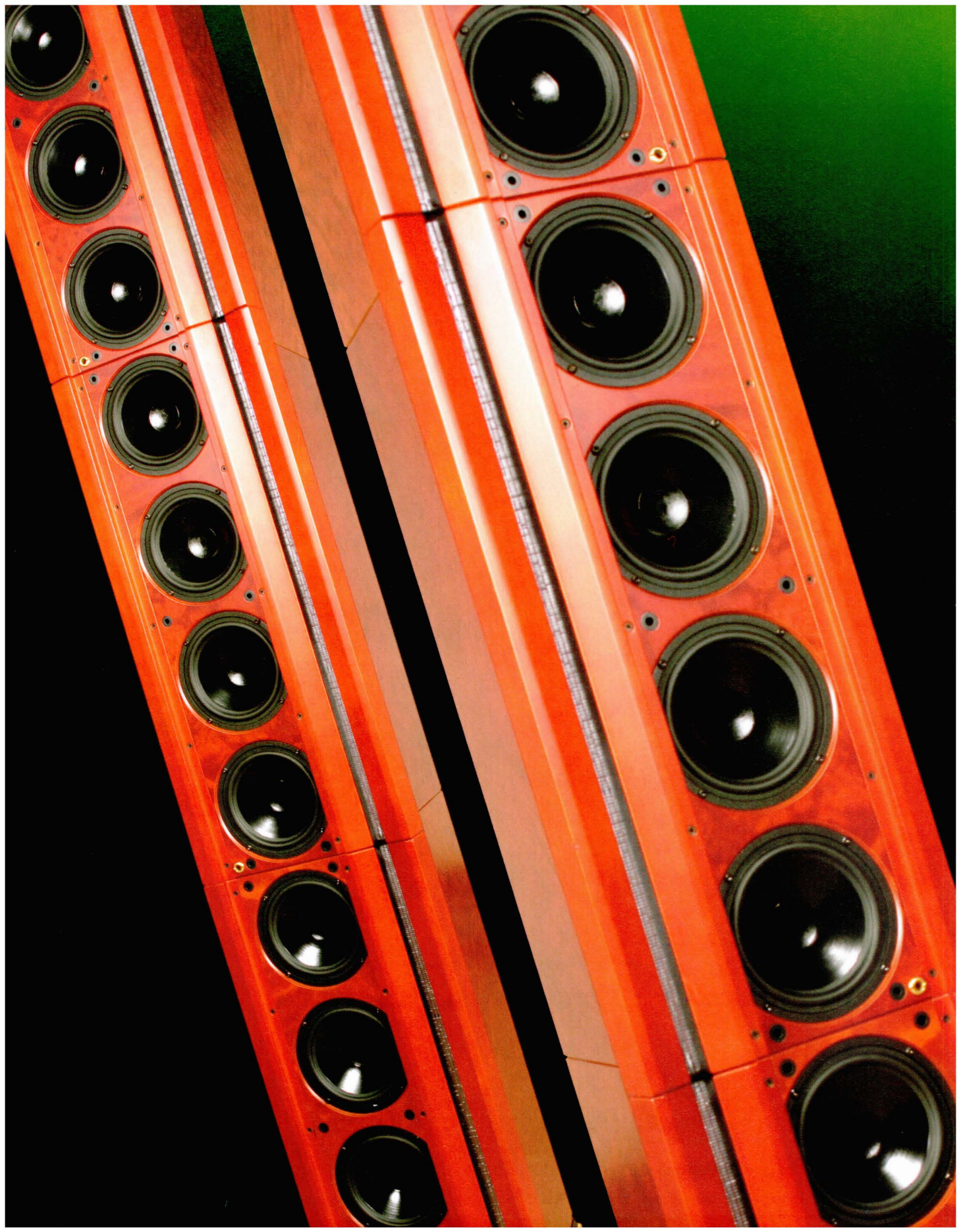
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# Stand In Line...

## Looking at full-range line-source loudspeakers, with a little help from the Dali Megaline

by Paul Messenger

So what's all this about line-sources, and why has Dali elected to build a speaker that almost touches the ceiling? It's all pretty intuitive really, provided you don't start digging too deeply below the skin. However, before getting on to discuss this very rare example of a line-source, let's start by examining the point-source approach, adopted by ninety-something per cent of the market.

The classic point-source speaker is a two-way stand mount featuring a 165mm port-loaded bass/mid driver topped by a 25mm dome tweeter. However, the finer details are irrelevant: what matters is that the diameter of each driver should (theoretically at least) be smaller than the wavelength of the sound frequencies it's required to reproduce. Provided that's the case, sound will be radiated from that source in every direction, the sound waves from each driver spreading out in the manner of an expanding sphere, like the blowing up of a balloon.

The problems come at the transition between bass/mid and treble drivers. This is usually around 2.5-3kHz, which is unfortunately just about the frequency zone where the ear is most sensitive. The regular two-way faces two main difficulties. The first is that the 165mm driver is starting to focus its sound radiation forward as it gets up to the crossover point, so when the small wide-dispersion tweeter starts coming in it creates a discontinuity in the dispersion patterns. While this won't necessarily

affect sound that travels directly forward to the listener, it will reduce the power response (which is a mixture of direct and room-reflected sound) at the top of the bass/mid driver's operating range, and this will dull the presence. The other difficulty associated with the crossover zone concerns the interference patterns created at the actual crossover point, where two spaced sources are supplying the same signal. Most two-ways place one driver above the other, and although it's possible to achieve a smooth transition across a modest vertical arc, by adjusting the relative driver positions and/or manipulating the crossover network, some degree of phase interference will always result, usually above and below the main axis, so there are shifts in perceived tonal balance when you stand up. Co-axial drivers, where the tweeter is situated in the middle of the main cone, can help mitigate this phasiness.

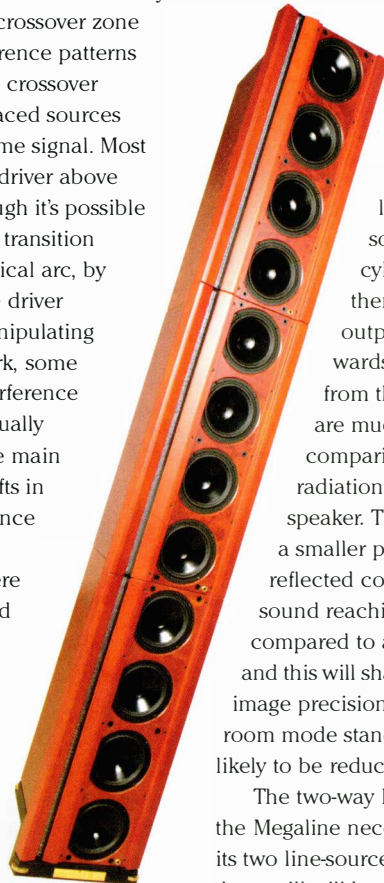
The main difference between the line-source and the point-source is that it creates a cylindrical rather than a spherical sound wave, and this has several important implications. First, the

sound pressure of a cylindrical wave decays according to a square law, whereas a spherical wave follows a cube law. The practical implication is that there will be noticeably less variation in loudness as one moves towards or away from

line-source speakers, and a more consistent level throughout the room.

Because the line-source delivers sound waves in a cylindrical pattern, there's virtually no output upwards or downwards, so reflections from the ceiling and floor are much reduced in comparison to the spherical radiation of a point-source speaker. This will result in a smaller proportion of room-reflected content in the total sound reaching the listeners, compared to a point source, and this will sharpen up the stereo image precision. The effect of room mode standing waves is also likely to be reduced.

The two-way line-source like the Megaline necessarily places its two line-sources side-by-side, so there will still be some phasiness around the crossover zone, but this will affect lateral rather than vertical head movements. In practice good crossover design and a lower than





► usual crossover frequency (1.5kHz\*) seems to keep any lateral phase shifts under surprisingly good control, while the total consistency in the vertical plane is both impressive and very welcome. The intriguing part is that the image always stays at ear height, so if you stand up, the image moves up to match.

Crossover and integration issues aside, the line source necessarily has a much larger driver area than a point-source speaker, so it should also have massive reserves of power handling, loudness capability and headroom. Why aren't all speakers line-source designs? Even a quick glance at the Dali Megaline answers that one: cost and visual impact. While a full-range line-source offers plenty of options for visually striking design, it won't ever be discrete, while the mechanical requirements and material demands make it inherently expensive. Hybrid based on a single bass unit? If you've read the beginning of this piece you'll realize that that's throwing out the baby with the bath water, besides which, it's another story altogether...

### The Dali Megaline

Dali's unique and unquestionably magnificent Megaline is not a new loudspeaker, though this may well be the first formal review undertaken in Europe. In current guise it's actually a Mk III version, and the original concept goes back to 1996. Indeed, the Megaline is itself loosely based on an earlier model called the Skyline, which first appeared way back in 1990, and which

I reviewed in 1991. And the factor that distinguishes both models from practically everything else on the market is their use of an unusually tall ribbon tweeter that operates as a line source.

Down the years, Dali has made rather sporadic appearances on the UK market, perhaps in part because it has good home market distribution via its close links to Scandinavia's leading hi-fi retail chain, Audio Nord. However, having visited the factory and met the principals last year, I'd certainly describe it as one of Denmark's more interesting and creative speaker companies.

The name is actually an acronym for Danish Audiophile Loudspeaker Industries, and the Megaline is its flagship 'statement' product. There are several good reasons why it has rarely, if ever, been reviewed, but after hearing it during that factory visit (admittedly using unfamiliar amplification), I was anxious to hear them at home and determined to make the effort. And effort is very definitely involved here, not only because the Megalines stand nearly eight foot

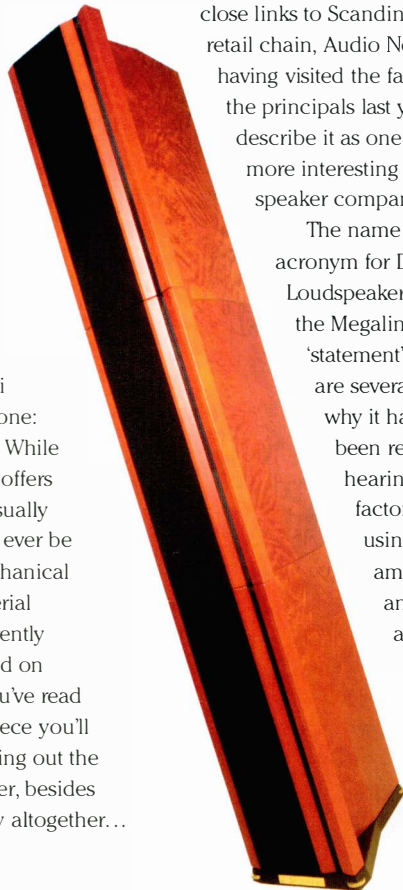
tall, but also because they come with an external, active two-way crossover, and therefore a pair needs to be driven by four matching channels of amplification and speaker cables. Since Dali doesn't manufacture amps (or cables), quite a bit of organisation was needed even before embarking on the installation. A crucial point to note is

Connect two speakers in series and the impedance is doubled; connect two in parallel and the impedance is halved. Therefore if four speakers are connected as two series-pairs in parallel, this takes you back to your starting point, giving the same impedance as a single speaker. By the same token, four such groups of four series/parallel-connected speakers can themselves be connected in series/parallel, again to deliver the same impedance as a single speaker.

that, notwithstanding its thirteen drive units, this is essentially a two-way speaker, and benefits from the basic simplicity of this factor.

That recent factory experience reminded me of an incident some years previously, which all started when Rega supremo Roy Gandy told me he'd heard these sensational floor-to-ceiling Dali ribbon speakers at some overseas hi-fi show. Those were the original three-way prototypes of the Megaline, which operated as a full range dipole as well as a line source, though these proved difficult to set up for good in-room results. But the concept of a floor-to-ceiling line source was sufficiently impressive that Roy and I were inspired to try a rather elaborate and time-consuming experiment. This involved trying to create a stereo line source using multiple pairs of Rega's tiny Kyte stand-mount. The Kyte is just 19cm wide, and the ceiling is 2.6m high, so there was room to stack 13 speakers laid on their sides. In fact 16 pairs were used, as this allows the series/parallel wiring that presents a load equivalent to a single speaker (see sidebar). While it took all day to carry out the wiring, it didn't take nearly as long to discover that the arrangement didn't work all that well. Although the bass and midrange were fine, the treble rolled off quite strongly, because the spatial discontinuities between the tweeters were too great.

That's not a problem which afflicts the Megaline, where the treble is handled by a (nearly) continuous ribbon roughly 226cm long, claimed to be the equivalent of 80 25mm



\* The lower crossover frequency is a function of the structural form of line source drivers, the same as the 3k figure for a two-way is a function of the 25mm dome tweeter. The long diaphragm of a line-source simply reaches lower.

▶ dome tweeters, mounted alongside a vertical row of twelve 165mm cone drivers, which is not as weird as it sounds, with both Nearfield Acoustics (the Pipedreams) and MacIntosh producing something along these lines. To ease the transportation and installation of the 110kg Megaline, the speaker actually comes in three modules, each consisting of four bass/mid drivers plus a 75mm ribbon. (I guess those with very tall ceilings could add a fourth module, though it's probably unnecessary.)

These acoustic modules are accompanied by a neat plinth with captive spikes, plus the outboard two-way active crossover unit.

The considerable height will make it hard to ignore or overlook this speaker in most domestic environments, especially as it needs to be kept well clear of walls. However, in a larger room one can adjust to its presence, and the exaggerated height can actually help the speakers to become part of the room's structure rather than being objects in their own right, almost as though they form columns supporting the ceiling. Bar the front edge mouldings and plinth, the speaker is handsomely finished in an attractively figured Alpi veneer. One possibly relevant practical point is that the speakers cannot be placed close to a conventional CRT television, because the ribbon has a very powerful unshielded magnetic field; plasmas and LCD based visual displays are unaffected.

The whole caboodle costs a considerable £30,000, a high figure which will certainly restrict its appeal, but not out of line with other large and

exotic high end speaker systems – and there aren't all that many larger or more exotic than this. Additional costs will of course be entailed in doubling up the power amplification, and perhaps the speaker cables too, although again,



this seems to go with

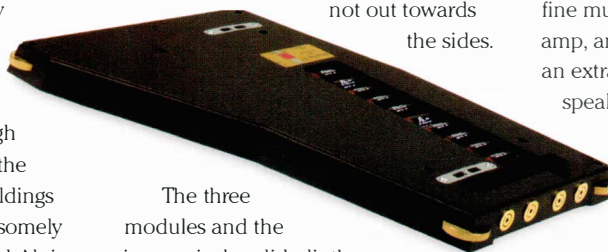
the territory.

The three acoustic modules are quite complex affairs, each consisting of a hefty hexagonal-plan enclosure with two-piece non-parallel sides almost half a metre deep, and a generous total volume of 80 litres.

Internal partitions stiffen and divide each in half

horizontally, each section loading two of the bass/mid drivers, and itself loaded by a rear port. The ribbon is mounted between two shaped wooden strips attached to the inside edge, and is open-backed, so that it operates as a dipole (as well as a line source). This means that it radiates sound equally (but out of phase) forwards and backwards, but

not out towards the sides.



The three modules and the impressively solid plinth are locked together by chunky Allen bolts, and a large slot in the back, covered by a metal strip, accommodates the wiring that links the modules together. Given the price of this speaker, I would have expected something a little more luxurious and pretentious than the very prosaic linking cables that were supplied.

A similar criticism might well be applied to the active crossover unit,

which comes in a simple aluminium-wrapped case and draws its power from a couple of outboard transformers – one for each channel – similar to those used to power a laptop computer. Compared to the construction and power supply arrangements of the Naim NAC 552 pre-amp that was ahead of the active filter unit in the system, this seems decidedly inadequate, and hardly worthy of a genuinely high-end system. This impression was reinforced by the subsequent discovery that weighting down the top surface with a granite slab gave a worthwhile improvement in coloration.

The plinth is a solid little affair, matching the plan footprint of the modules and ensuring good stability. A thumbwheel arrangement allows each captive spike to be retracted and individually adjusted, so it's quite easy to move and level the speaker.

I had hoped to be able to 'double up' my usual regular power amp and speaker cable, but both were in short supply: I couldn't get hold of an extra Naim NAP500 at all – it was the height of the holiday season (!) – and had just three days to play with an extra run of Vertex AQ Moncayo speaker cable. B&W kindly stepped into the breach with the fine multi-channel Classe CA-5200 power amp, and The Chord Company lent me an extra run of its excellent Signature speaker cable, so these components formed the basis for most of this review.

The twelve bass/mid drivers of the Megaline are connected up as three groups of four. Each of the latter are wired in parallel, giving a low net impedance of 1.6 ohms for each module; the three modules are then wired in series to give a net load of 4.8 ohms. Indeed, if anything the load is a little easier than that, rarely dropping below 6 ohms throughout the ranges of both drivers. Sensitivity is not really relevant with active speakers, but a rough check showed that there's a massive

► discrepancy between the underlying sensitivities of the two vertical arrays – the ribbon innate sensitivity is some 12dB less than the bass/mid array – and this is clearly a key reason for taking the active route. There are other possible advantages too, in the direct coupling of amplifier output stages to the drive units (though the ribbon includes a protective capacitor to protect it from any possible damage from DC signals); and in the precision with which the network can be executed.

Interesting, the crossover point occurs at 1.2kHz, which is nearly an octave lower than most speakers use, and in a zone where the ears are marginally less acute.

You don't really need as many as twelve 165mm drivers and six ports (tuned here to 38Hz) to deliver ample bass into a good size (4.3x2.6x5.5m) room, so it was no great surprise to find some audible bass excess once everything was connected up and running. This was confirmed by in-room measurements, which also indicated some leanness in the upper bass and lower mid-band. Big speakers regularly have difficulties at low frequencies, because the deeper they go, the greater the influence of the room; and the bigger they are, the fewer the practical options on where to place them.

Although I was able to place them with their front panels 1.1m into the room, it was clear that the

Megalines would have benefited from being further out still, to reduce an 80Hz suckout created by rear wall reflections. However, when I tried this, their visual impact was just too dramatically intrusive to tolerate for more than a short period.



Clearly the Megalines are best suited to significantly larger rooms than the one I had available, and should probably be sited with their fronts about 1.5m into the room. But, although the room match was less than ideal, this didn't unduly prevent my enjoyment of a quite remarkable speaker system – one that goes a long way towards vindicating and indeed proving the very real benefits of the line-source approach.

The most obvious and intriguing advantage of the Megalines over conventional 'point source' speakers lies in the sheer consistency of the sound they create. Stand up while listening, and the sound stays exactly the same; no phasiness of balance shifts accompany shifts of position, either vertically or horizontally. All that happens is that the image stays resolutely at ear level, whatever height that might happen to be. Just as interesting is the way the level (or volume)

remains noticeably more consistent than usual as one moves around the room.

This exceptional consistency would alone make for a remarkably natural and easy listening experience, but another factor that also plays its part is a strong impression of massive headroom, and a freedom from strain that one is aware of on an almost unconscious level, even when the speaker is playing at high levels. This is presumably a function of the very considerable driver area used here, which means that no portion of any diaphragm has to move more than a tiny distance, so there's never any chance of them operating beyond its zone of linearity.

Although the bass region might have been smoother and more even, as discussed above, the anomalies were by no means unpleasant, and the speaker delivers a sound which combines exceptional weight and scale with a complete absence of strain. The upper bass does lack a little punch and impetus, while warm, rich instruments like cellos do sound a little cool and lean.

The sound is beautifully open and neutral through the broad midrange and treble, while the crossover transition between cone drivers and ribbon seemed effectively seamless. The unusually open presence zone does demand the use of top quality ancillaries, and poor recordings can therefore sound a little uncomfortable, especially if played at high levels. By the same token, voices are notably clear and explicit. The lead vocals on Arcade Fire's excellent 'Funeral' are mixed with such restraint that it's not at all easy to make out the lyrics – or rather it wasn't until I played the album through the Megalines, which seem to have a particularly fine ability to render voices coherent and intelligible.

The imaging too is a major strength, the dipole ribbon conferring much ►





▶ of the delicacy and transparency associated with electrostatic panel speakers, while the line source factor completely avoids any tendencies towards 'hot spot' listening zones. Carefully seated on the stereo apex, image accuracy can border on the breathtaking, as I found when enjoying a number of this Season's Proms, the Megalines highlighting the superior mike techniques of the BBC engineers, and revealing the full scale and depth of the Albert Hall's spacious acoustic. Above all, perhaps, the image perspectives always sound supremely natural, providing proper depth where this exists in the recording, yet making no attempt to disguise the 'multi-mono' techniques of most recording studios, and without any tendency to hype or emphasise any part of the midband.

One guide to the quality of any speaker system lies in its ability clearly to reveal any changes made in the driving system, and here the Megaline proved rather effective – even to the extent of revealing some limitations in its active filter unit. I spent a day trying out some of the latest Vertex AQ bits and pieces, and the effect of introducing these one at a time into – or indeed removing them from – the system was mostly very obvious.

Despite their considerable bulk and visible impact, shut your eyes and these speakers have a remarkable tendency to disappear. There's no audible boxiness here whatsoever – you hear the sound and music that these speakers reproduce, without ever being made aware of the location of the speakers themselves, because, even up close the sound remains impressively

consistent and well detached from the speakers themselves.

Virtually everything about this speaker is positive, especially from an acoustic perspective, though I did find the whole thing a trifle understated in terms of dynamic drama and expression. That might be a function of the speaker itself, but quite likely – indeed probably – it was due to the insertion of unfamiliar electronics into my normal system.

At the end of the day, speakers can only be as good as the system that feeds them, and while the Classe CA-5200 power amp I used with the Megalines is unquestionably a high quality item, it's by no means the top of Classe's line, and cost only a third the price of a pair of Naim NAP500s. Without access to a second NAP500 power amp, there's no way of pinning this down precisely, but I remain suspicious of the active filter unit, and specifically the very modest looking power supplies that it uses. And the fact that mass-loading its alloy casework served to lower the system coloration to a worthwhile degree adds to my suspicion that this might represent a limiting factor in the system as a whole.

Even though there's no way of resolving that one significant caveat, it's still abundantly clear that this is a truly great loudspeaker system. Pretty and discreet it's not, and the bass alignment is certainly better suited to a larger room than the one I have available, but the line-source mode of operation is a definite plus in terms of all round consistency, room-independence and

stereo imaging, and the combination of two-way simplicity with massive headroom and loudness capability is very rare and very persuasive. While the active filter unit might compromise the performance to a degree, this is still one of the finest speakers available at any price, with unique strengths that are probably unavailable with any other design approach. ▶+



#### TECHNICAL SPECIFICATIONS

Type:	Full-range, active line-source loudspeaker
Drivers –	
High frequency:	3 x proprietary dipole ribbons
Low frequency:	12 x 165mm
Enclosure type:	Reflex loaded
Frequency range:	35–22000 Hz ±3 dB
Nominal Impedance:	6 ohms
Crossover frequency:	1200 Hz
Bass reflex tuning frequency:	38.5 Hz
Recommended amp power:	100–1000 W (2 channels required per speaker)
Finish:	Alpi veneer
Dimensions (HxWxD):	365x2310x492mm
Weight (3 modules):	110 kg
AC-U Active Crossover	
Frequency response:	5 Hz–200 kHz
Filter Precision:	± 0.25 dB
Input impedance:	20 kOhms
Output impedance:	50 Ohms
Connections:	RCA/phono
Max. cable length to power amps:	10 m
Dimensions (WxHxD):	440x48x305 mm
Weight:	4.8 kg (exc. power supplies) 6.1 kg (inc. power supplies)
Price:	£30,000 per pair

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# The Ayre C-5xe Stereo Universal Disc Player

by Chris Thomas

In an ideal world my CD player would be able to play every five-inch optical disc available. It would be capable of successfully decoding all formats and it would also recognise any disc I placed in its transport and instantly configure the machine for ultimate playback quality. I like what I have heard of SACD and I have discovered that DVD Audio can also offer serious sound quality. In fact both formats, it seems to me, are inherently superior to the standard version but the problem is that, when compared with CD, there is very little "real" music available on them. Both SACD and DVD-A look like struggling unless whole catalogues of music we actually want to listen to become available.

The Ayre C-5xe is one of a handful of players currently on the market that plays all of the formats including CD, SACD, DVD-A, the audio section of DVD-V and disc-recorded MP3. It does not have any video capabilities nor can it function as a surround-sound source but it is able to access all relevant tracks on DVD-A and where it cannot find a high-resolution stereo mix it will automatically mix down to two-channel stereo. It can play the audio tracks of standard DVD-V and on DVD-A enables one to select the highest resolution section by a simple scrolling method via the remote handset and the front panel display, without the need to connect it to a TV. But, due to the aforementioned lack of a comprehensive library of music available on the other formats the real acid test for

this extraordinarily versatile machine remains its performance with standard Compact Disc. It seems to me that if it is not competitive here, the fact that it sounds great with SACD and DVD-A will be largely irrelevant.

Having heard Ayre CD players before, I would have been very surprised if the C-5xe had fallen at that first fence. It didn't and after an initial period where I was listening to every SACD and DVD-A I could



get my hands on and comparing 96kHz/24-bit with 192kHz/24 bit layers on DVD-A discs (enlightening in itself) I settled down to a couple of months of using the player like any other and this inevitably consists largely of standard CD listening. After all, who wants to use their system to listen to sound quality when there's so much music out there? Any takers?

Like all Ayre products the C-5xe is a clean looking design, beautifully put together and uncluttered. Information is made available through the comprehensive display which indicates, among many other things, which type of encoded music is being played. It does this automatically on all except

those discs that have multi-layering and then you will sometimes need to consult the disc cover and flip through to the "group" of tracks you want to hear. But apart from that this Ayre player does the work for you. A simple but elegantly thought out set of transport keys control all disc functions and the remote is an excellent illuminated metal bodied affair which features a numeric keyboard

(hooray!) and you will use this most of the time. The display could perhaps have been a little bigger so that it was clearer from the listening seat. There again, after a while you get to recognise which light means what, so this is no big deal. You can also turn it off.

The rear panel offers both single-ended phono and XLR balanced connection outputs. There is also a balanced AES/EBU digital output, which is inactive when playing SACDs. A small set of switches mean that this can be set to different sample rates (44/48kHz or 88/96kHz) or be turned off altogether. There are also another set of switches which enable the unit to communicate with a system controller and a selectable digital filter offering the two algorithms that I remember from an earlier Ayre CD player I reviewed. These are marked DF Listen and DF Measure. Listen offers greater accuracy in the time domain while Measure majors on more accurate frequency control. You could drive yourself ever so slightly bonkers

► choosing as making the selection is fiddly but you will have a preference. I chose Listen early on and stuck with it.

With the player came an AX-7 integrated amplifier, upgraded since I reviewed it a while back. This enabled me to try the C-5xe in a fully balanced set-up that I know that Ayre favour although I did use some single-ended Nordost Valhalla too. I think I understand their preference for balanced connection, as this seems to enhance

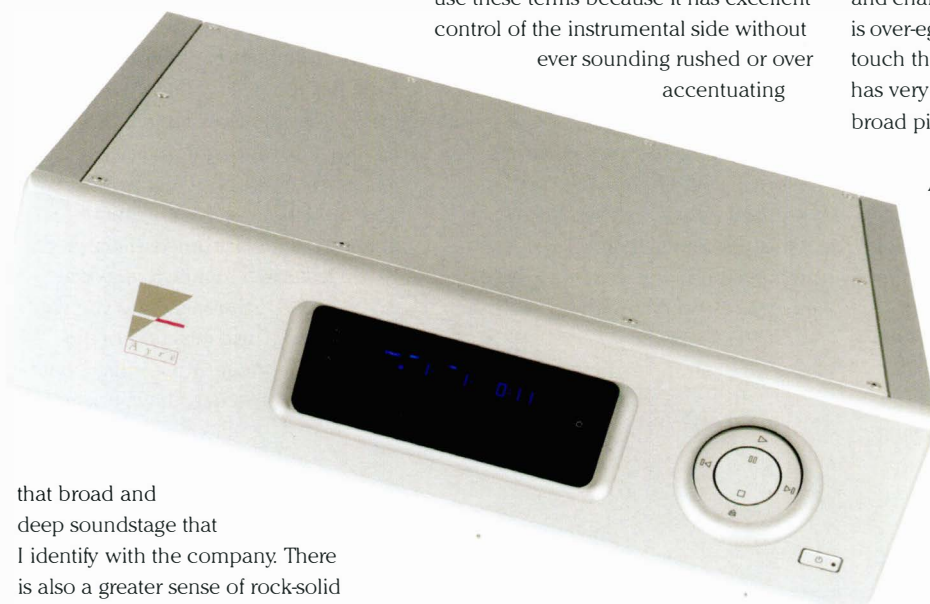
review of disc formats and to a certain extent this is unavoidable. CD, SACD and DVD-A can all sound so different and show such hugely varying levels of quality that it is hard to get a real grasp of exactly what the player itself is contributing. So I'll attempt to separate the way the C-5xe deals with the varying formats, beginning with CD.

As with previous Ayre components I have listened to, this player shows that same feel of unfussed, cool precision. I use these terms because it has excellent control of the instrumental side without ever sounding rushed or over accentuating

music. As I've mentioned before when talking about Antonio, I feel he is at his best when he brings the intensity level down and lets the focus fall on his range of artistic subtlety. When he does he draws the ear into a more delicate relationship with his music. This is food and drink to the C-5xe which shows nuance upon nuance in his fingering technique. And the sound is clean, not in that bleached digital way but in a way that preserves the harmonic structure and character of the instrument. Nothing is over-egged with the Ayre. It has a light touch throughout the bandwidth and has very good separation helped by that broad picture it paints.

But turn to SACD and the Ayre adds weight, flesh and scale. The music has more pure mass and becomes more vivid and real. Instruments can be so much more tonal and harmonically charged. It makes the standard CD performance seem grainy though this is a format observation rather than a criticism of the player itself. But it retains the basic presentation, stability and ease when dealing with rhythm and tempo. I enjoyed the well-known recording of Stravinsky's *Firebird* (Mercury 643-2) made at Watford Town Hall in 1959 despite its low level. The sense of acoustic space and the aural view of natural space of the orchestra were really stunning with only a lack of fine resolution giving away its age.

*Land Of Giants* (Telarc 63576) is an acoustic album by a four-piece combo featuring McCoy Tyner on piano and Bobby Hutcherson on vibes. This is another 50's recording but the SACD format seems to wipe away the years. The simple recording helps as it gives each player plenty of room in the soundstage yet you can sense this telepathic feel that they have together. The flow is the thing and the way they are able to sit the tempo in



that broad and deep soundstage that I identify with the company. There is also a greater sense of rock-solid stability and instrumental location and placement within the picture and perhaps a shade more resolution, but to me it never sounded quite as rhythmically "loose" or lively as with the single-ended connection. It's a swings and roundabouts one for me but, once again, you will have a preference.

I'm afraid that this is another one of those components that takes an age to burn-in from new. Symmetry, the importer confirmed this when I had rung with furrowed brow after a few days of very bland music. You have been warned.

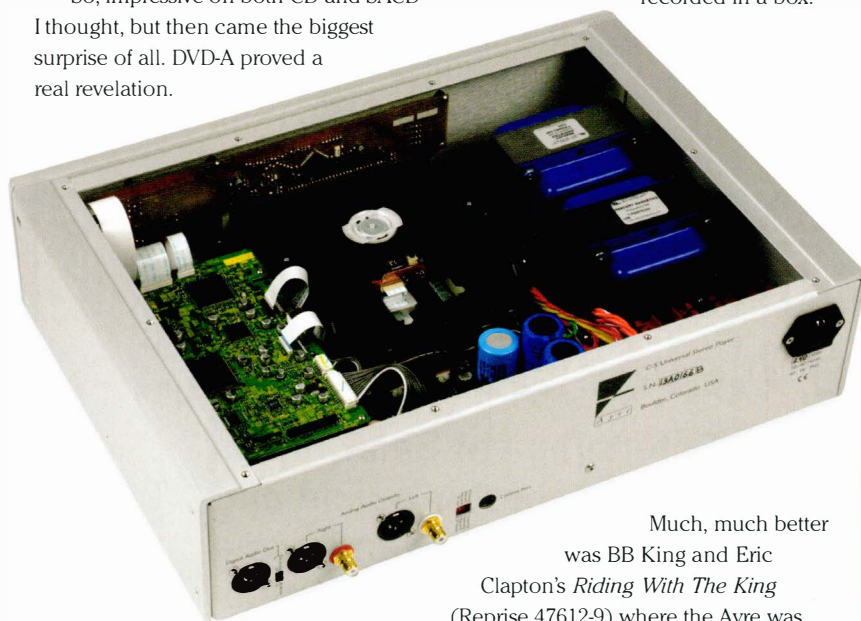
In many ways this is quite a difficult product to assess as its performance levels vary so wildly with the various types of discs it will play. It would be very easy to slip into a comparative

any part of the note or the bandwidth. And its overall resolution, particularly low-level, is notable. Rhythmically it never really seems to break sweat. It is not a player that will overwhelm you with out-of-the-speaker excitement and it is never right in your face. The Ayre way is to spread the music before you in one of the broadest soundstages you will hear this side of a Mark Levinson player. It has depth and height too, describing the position of vocals and instruments with a sense of scale, dimension and location that makes it enormously attractive and easy to slip into long listening sessions. I've been impressed with Antonio Forcione's new release *Tears Of Joy* (Naimcd 087) and the degree of musical intimacy that he has instilled in the



▶ anticipation or just behind the beat to allow Tyner to take a few liberties with time and explore what happens when you wander around chordally. This is not a great technical recording by today's standards. The bass is a bit plummy and the piano can sound very chorus-like when he is vamping chords but it has a touchable atmosphere and sense of live, unprocessed music about it. Play it on a standard CD player and it just doesn't have the same impact.

So, impressive on both CD and SACD I thought, but then came the biggest surprise of all. DVD-A proved a real revelation.



Who would have thought that I could sit and listen to Neil Young's *Harvest* some thirty-four years after it was released and enjoy it? Besides the various surround options this offers Advanced Resolution Stereo at 192kHz / 24-bit. It was like hearing the music for the first time instead of the first time in twenty years. Gone is that compressive mush that I remember from vinyl days. There is terrific separation between the instruments, coupled with a surprisingly clean and detailed bandwidth and this gives the songs a whole new meaning and resonance. Compare it with the 96kHz/24-bit and it's a complete no-brainer as the higher sampling rate brings strength and energy to each and

every instrument and gives Young's voice an even greater sense of plaintive isolation (nasal? yes, but still lonesome).

At its best DVD-A seems much closer to listening from tape than just about any digital playback system I have heard and that paradoxically includes listening off-tape via a DAT player. But the format does not guarantee great results. I was very disappointed with George Benson's *Breezin'* as it sounded limp and imprecise, like it had been recorded in a box.

Much, much better was BB King and Eric Clapton's *Riding With The King* (Reprise 47612-9) where the Ayre was supremely assured and controlled. Again, this is not in my normal listening menu but I really got hooked into the guitar sounds and especially their individual musical styles as they are obviously having a great time playing off each other. It's an object lesson in how blues phrasings have developed over the years, from note bending to the radically different approaches to vibrato. But it's also a great illustration of timing and here I mean real timing and certainly not what seems to have been confused with tempo by many audiophiliacs. I mean timing as in that used by a great comedian who delivers the punch line at precisely the right moment and with that delicious degree of pause. But it sounds great. I get the message.

I mentioned at the top of the review my concerns for the future of these formats and said that to make economic sense the C-5xe simply has to cut it as a regular CD player. This it does and I would say that musically it is totally in the ballpark for the price. If you are also interested in exploring the world of SACD and DVD-A then it's a steal. But don't let your dealer forget that it needs a very lengthy burn-in. Listening to it straight from the box is really not an option if you want to understand and appreciate just what an excellent machine this is. I have always thought that if a piece of equipment can get you to look and think more closely about the music you love or, because of its musical depth, change your mind about a piece you thought you knew then it must be well worth considering. The C-5xe had me reconsidering music I'd long discarded, which is quite a recommendation.



#### TECHNICAL SPECIFICATIONS

Type:	Single-box universal disc player
Formats supported:	CD, SACD, DVD-A, DVD-V (Audio portions) MP3 (Disc based)
Outputs:	1pr Single ended, 1pr Balanced. Switchable digital (AES/EBU)
Transport:	Pioneer Universal
Dimensions (WxHxD):	440x120x330mm
Weight:	12kg
Price:	£4400

#### UK Distributor:

Symmetry  
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e-mail: [info@symmetry-systems.co.uk](mailto:info@symmetry-systems.co.uk)

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Impedance	8 Ω
Nominal Power	150W
Sensitivity	88dB
Drive Units	5" twin ribbon tweeter 6" DPC cone midrange/bass
Crossover Frequency	2400Hz
Dimensions (cm)	W 23 x H 42 x D 34
Weight	11kg/pc
Finishes	variety of beautiful 14 coat piano lacquer finishes

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Frequency Response	29 Hz - 60 kHz
Dynamic Range	10W-200W
Impedance	8 Ω
Nominal Power	130W
Sensitivity	88dB
Drive Units	5" twin ribbon tweeter 7" ceramic cone midrange/bass
Crossover Frequency	2200Hz
Dimensions (cm)	W 24.5 x H 39.5 x D 35.5
Weight	14kg/pc
Finishes	variety of beautiful 14 coat piano lacquer finishes

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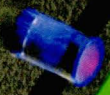
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Townshend

LP 674





# The Townshend TA 565 CD Player (with universal disc replay as a freebie...)

by Alan Sircom

Not so long ago, Townshend Audio transformed a humble Pioneer DV-565 universal player, changing it into a three-box device – one for the deck itself, one for the power supply and a third for the suspension cage. Today, Townshend Audio transforms a humble Pioneer DV-565 universal player, changing it into a two-box device – one for the deck itself, one for the power supply with built-in suspension. In the process, the player sounds much better, the player looks cooler and the price has dropped to £3,000.

There's a semantic distinction to be made about the player itself. Is it a Townshend model, or a hot-rodded Pioneer? In a way, it's both. The bulk of the player is Pioneer-based (the front panel is merely a skin over the DV-565's and the menu system, remote and most of the back panel is entirely Pioneer-derived). However, the changes to the player are arguably more than merely a series of tweaks.

What Townshend Audio does to the Pioneer player is radically improve the filtering and output stage. The logic goes as follows; the base model is surprisingly good in and of itself, but is a diamond in the rough. A few small, but vital changes, transform this model dramatically, bringing it right up into the top league of players. This opens up huge intellectual problems for the audio business, if true; what's the point of exotic

engineering projects for transport mechanisms or top-of-the-line DACs if they can be bettered by what is essentially a pimped-up version an up-market supermarket-seller DVD player?

Empty philosophising aside, the filter is a balanced multiple feedback Butterworth design, suggested to be set at -3dB 80kHz, for steep roll off with phase shifts way outside the audio bandwidth. This features precision film and foil polypropylene capacitors and 0.1% metal film resistors, chosen for their tiny 15 parts per million per degree Celsius temperature coefficient.

Normally, a Pioneer 565 – along with practically every disc player the world over - sports op-amp chips in the audio signal path. Unfortunately, Townshend Audio believes that even the best audio grade op-amps are beset with problems of over-complexity and the poor fidelity and sheer lack of linearity that occur when there are half a grillion microscopic components between you and your audio signal. So, they ditch the op-amps in the

stereo analogue output stage. Instead, it relies on a fully discrete Class A amplifier stage. This is manufactured in house, to allow Townshend to specify the best-possible mix of dual monolithic J-FETs and bipolar junction transistors in a single-ended pure class A configuration. Townshend claims this delivers optimum global feedback for the highest linearity and lowest distortion. According to the blurb, THD and IMD measured at better than -120dB. This hot-rodding requires a very slight change to the back panel of the player

compared to the Pioneer original; the Scart socket is gone, replaced by a pair of high-quality phono sockets for the main left and right channels.

Next to these is a little toggle switch to turn off the video circuitry; a good plan when listening critically.

Back to the empty philosophising. Townsend Audio has grand plans for the audio chain, and they work around using the elements developed in the output stage, but more significantly the filter network, right across the chain. In essence, Townshend Audio is developing an amplifier-less amplifier, almost a series of power filters. This sounds odd to anyone ►



▶ not Max Townshend, but Max has a way of explaining his ideas that makes you wonder why we haven't been thinking his way for decades. He also backs it up with sound quality to match. Trouble is, when you come to write-up his thoughts, it sounds trite and, well, daft. In many respects, that's the sign of true genius (or the purest snake oil);

supply specifically for the stereo digital conversion stage. This makes the digital conversion stage far less prone to jitter. Two leads connect the power supply and regulation box to the main unit; a small, filtered three-pin IEC output to

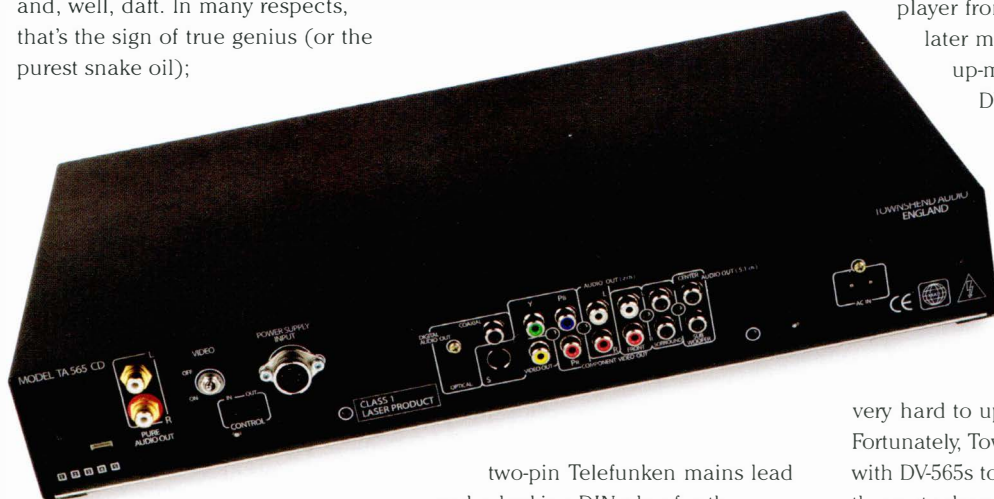
There are separate supplies for the main clock, the digital-to-analogue converters and the analogue circuitry.

Anyone who happens to follow the affairs of cheap Pioneer players will know that the DV-565 is not a new model. In fact, it's a discontinued player from Pioneer. Trouble is, later models – including more up-market ones than the DV-585 that is the DV-565'd heir – are now heavily sprinkled with Large Scale Integration. In other words, the newer players are essentially a universal player on a chip. This makes it

very hard to upgrade, Townshend style. Fortunately, Townshend stocked up with DV-565s to begin with. When those stocks run out, Townshend will either have to buy up models on eBay or move on. Ultimately, this isn't a problem; there are many products floating around with discontinued parts and a backlog of supplies in the warehouse.

Trouble is, they won't stay in the warehouse for long. The players sound too good to lie fallow for any appreciable time.

It's a very clean, musical sound allied to the deepest bass you'll hear this side of swimming with whales or building a grand cathedral organ in your living room. There's absolutely no bass overhang, though; the

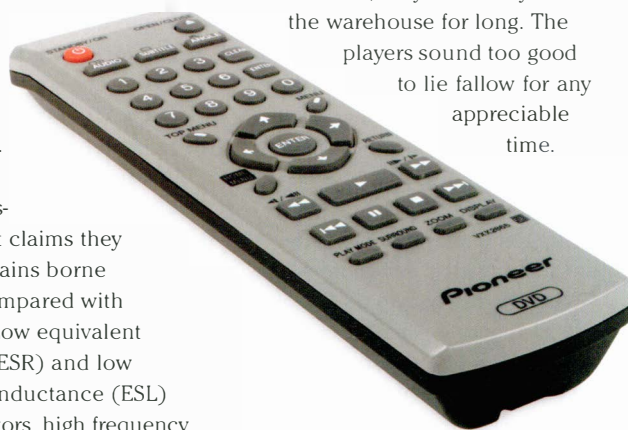


when normal thinkers try to translate Max smarts, we butt up against our own blinkered engineering and electronics limitations.

The power supply box falls into two sections; the first is essentially a smoothing, regulated mains filter. This could, in theory, be used for any mains-powered product like an Isotek, although this one is customised for the TA 565. It delivers DC as pure as it possibly can (as little ripple or noise as can be obtained) to key stages in the digital and analogue circuits. Current thinking suggests a switch-mode power supply is the right way to do this, but that sort of current thinking does not exist in Townshend world; the company effectively re-engineered the more conventional (but physically larger and more expensive) transformer/bridge/capacitor/regulator supply, concentrating on high frequency noise rejection up to 40GHz and the delivery of pure current to drive the Class A analogue circuitry as well as a completely super-smoothed five-volt

two-pin Telefunken mains lead and a locking DIN plug for the specialised DC input.

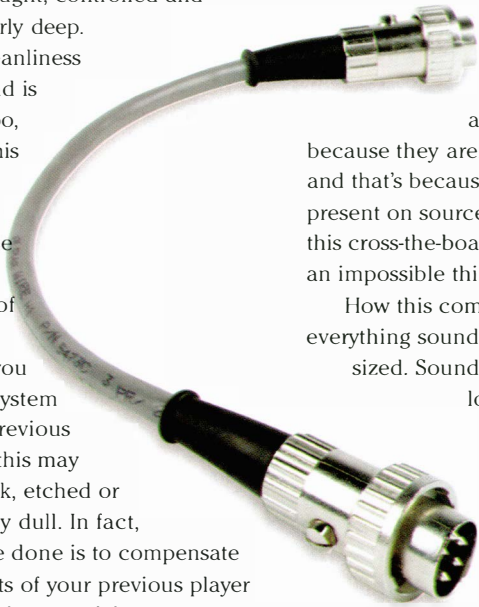
Inside the power box, two conventional mains transformers drive dual Schotke diode bridge rectifiers that feed a dual three-stage multiple ladder network optimised to provide a very low ripple DC supply with extremely low harmonic content. Townshend uses conventional transformers because it claims they deliver superior mains borne noise rejection compared with toroidal designs. Low equivalent series resistance (ESR) and low equivalent series inductance (ESL) electrolytic capacitors, high frequency polyphenylene sulphide premium capacitors and precision metal film resistors are used throughout. Once inside the player itself, direct current feeds are further filtered and regulated by proprietary wideband, zero feedback discrete component regulators.





▶ sound is taught, controlled and utterly, utterly deep.

The cleanliness of the sound is stunning too, although this may be the area where most people fall foul of the sound of previous players. If you built your system around a previous CD player, this may appear stark, etched or even slightly dull. In fact, what you've done is to compensate for the limits of your previous player by treating the rest of the system as a form of tone control. The big hint is the total lack of grain in the TA 565 CD. If the player was coloring the sound, it would introduce some kind of distortion, usually graininess. Here, the player is remarkably clean, making almost every other player sound gritty and unattractive.



because they aren't often mentioned, and that's because they aren't always present on sources. Once you hear this cross-the-board coherence, it's an impossible thing to give up.

How this comes across is that everything sounds right and right-sized. Sounds have their own

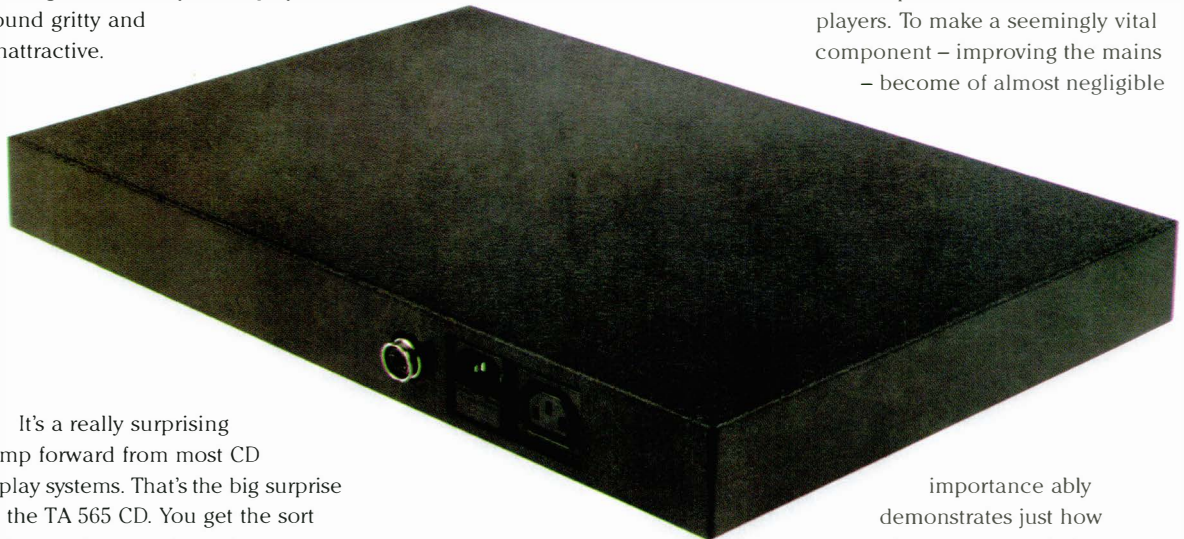
location within a perfectly-defined three-dimensional space and these sounds each have their own sense of scale within the whole.

Yet this sounds commonplace, but through the Townshend player these basic properties of a player come out shiny and new. It's this transformation, coupled with a tightly focused sense of

vocal articulation. These are seemingly abstract concepts because they aren't often mentioned, and that's because they aren't always present on sources. Once you hear this cross-the-board coherence, it's an impossible thing to give up. How this comes across is that everything sounds right and right-sized. Sounds have their own location within a perfectly-defined three-dimensional space and these sounds each have their

heavily, and it seems that the player stamps a 4/4 timing on everything. Fine, when laying down some good ol' blues; not so hot when listening to the spoken word. Here, the Townshend imposes no rhythm of its own to the music played. Instead, it is so adept at digging information off the disc, it will find the rhythm no matter how buried, no matter how complex. I suppose the ultimate bonus of this player is that information retrieval; this is a player that delivers detail, pure, unadulterated detail. Few players this close to delivering all the digits, and at this price, the TA 565 CD is in a class of its own; it's nearest rivals are in the Wadia, Audio Research or even Zanden league. That makes the Townshend a bargain on stilts.

As a small aside, that power supply really does something special to the mains. Try experimenting with filters, funky mains leads or anything odd in the AC line and the differences are less profound than with most players. To make a seemingly vital component – improving the mains – become of almost negligible



It's a really surprising jump forward from most CD replay systems. That's the big surprise of the TA 565 CD. You get the sort of image depth and spaciousness normally reserved for good vinyl. You get near-perfect coherence, too, the like of which is seldom heard on any source. Coherence not just of tone and timbre, coherence of dynamic range and coherence of

musical communication, which lofts the Townshend player into the top league.

Musicality is often a double-edged sword; sometimes, the need to keep the beat is imposed too

importance ably demonstrates just how good that power supply box really is. There is a distinct Pioneer sound to most models using the brand's OEM components as a basis for a universal player. There's a sheen to lower mids that's a bit plasticky sounding and – no matter how





▶ subtle – is almost impossible to overlook once noticed. Townshend Audio is the only Pioneer-based player to date that eradicates that sheen entirely. Instead of the sheen, you get a lithe naturalness that challenges the best in CD.

You'll likely notice, I've not touched upon the player's performance with DVD-Audio, DVD-Video or SACD. It's because there's no need to look at these aspects. It's a very good universal player, with above average sonics and a picture that may miss out on 2005 technology like HDMI digital video inputs, but is still possessed of a decent, natural picture. But, none of these things are germane to the Townshend player. It's a case of reality bites, with the Gospel according to Max suffering a major revision (even a U-turn) when it comes to hi-res digital. The once "saviour of high-end sound" is now an irrelevant peripheral, banished by market forces. Never mind, the crusade goes on. Yes, it's a dream with multi-channel audio, but the bulk of players will be used in a CD context and it's here where the player is in the very first league. Given that it trades blows with CD-only players costing thousands of pounds more, this is a mighty result.

Think of it as Rolls Royce luxury for BMW money.

What's perhaps the most upsetting thing about the Townshend Audio TA 565 CD is that it will be overlooked by those who automatically reject universal players simply for being what they are. Turn the vision off, hook up the bigged up stereo inputs where the Scart should be and pretend this is a CD player, you'll be rewarded with one of the best sounding CD players on the market. This is a CD player that just happens to support all the other formats, and in no way should it be thought of in the other way around.

Perhaps the strongest recommendation is that, when the product was picked up in its little crate, the first thing said to the editor was "I need it back". This was repeated several times. A journalist goes through products like a cat gets through Whiskas, precious few leave an impression so strong that you start to miss the device the moment the power is switched off. The TA 565 CD is the exception, and it's one hell of a keeper.



#### TECHNICAL SPECIFICATIONS

Type:	Universal disc-player with external PSU and suspension system
Formats Supported:	CD, SACD, DVD-A, DVD-Video, DVD-R/RW discs (both in 'Video' mode and 'VR' mode), DVD+R/RW, CD-R/RW, CD-DA, MP3, JPG and Photo files with EXIF data
Outputs:	Dedicated stereo, 5.1 and Video
Output Level:	2.0V
Dimensions (WxHxD):	430x144x285mm
Weight:	10Kg
Finish:	Black
Price:	£3000

#### Manufacturer:

Townshend Audio  
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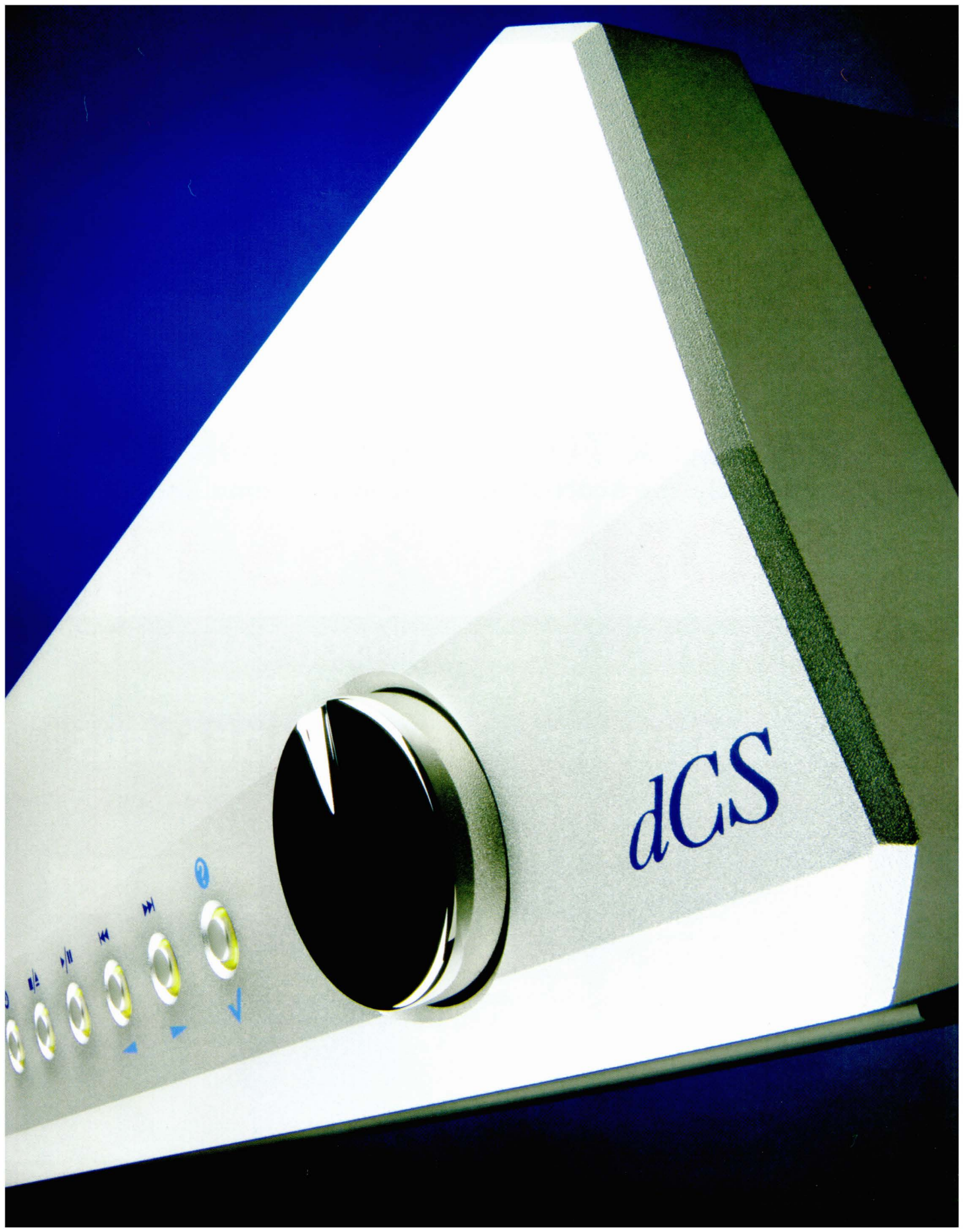
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dCS



# The dCS P8i Up-sampling SACD/CD Player

by Roy Gregory

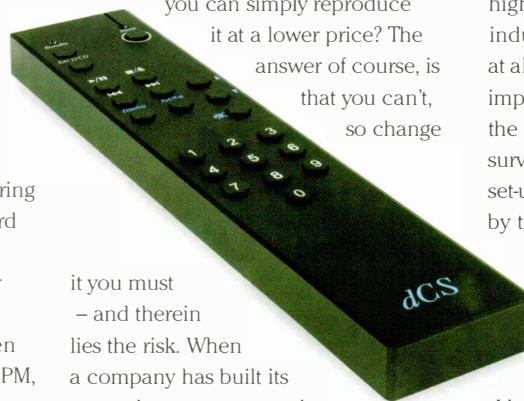
Relocating a successful and established formula or product to a more affordable point in the marketplace is a risky business. Just look at the problems Linn had with the LP12. Never, before or since, has a piece of hi-fi enjoyed such total market dominance, nor for such an extended period. But despite the depth and duration of the Sondek's sales and philosophical hegemony, even Linn saw a point at which the market would reach saturation level. Hence the constant upgrades and hence, eventually, the Axis – a cheaper deck intended to spread the company's influence and sales share into a much more affordable market sector.

Planned to capture all those aspiring buyers who wanted but couldn't afford or justify the cost of an LP12, things didn't quite work out like that. Neater and more modern in appearance, with no fiddly build or set-up and even including electronic switching to 45RPM, the Axis appeared to have it all. But somewhere along the line Linn had miscalculated. It might have dealt with most of the gripes habitually aimed at its older brother but the Axis also dispensed with the Sondek's familiar sonic thumbprint. "It's more neutral", we were told (after years of the company poo-pooing neutrality) and, "It's easier to use" (after years of learning that it's solely sonic performance that matters). "It's also boring to listen to" we responded and pretty soon the lack of installation ritual required along with the modern looks flipped from being a positive to a negative. If the quirky set-up and lack of style were the downside

of the Sondek, they were also what separated it from the hoi-polloi – part of the price and part of the justification. The Axis never achieved anything like the popularity expected of it and slipped quietly from view in one of the many range revisions that marked Linn's transposition into its current guise.

Now, it's easy to point out that the Axis failed precisely because it changed a successful formula but that misses the point. Why change the formula at all if

you can simply reproduce it at a lower price? The answer of course, is that you can't, so change



it you must – and therein lies the risk. When a company has built its reputation on an expensive product that establishes a benchmark for performance within the industry, translating that expertise into more affordable products is fraught with possible danger. Not only must the company keep a clear view of its design priorities and just what it is that contributes to the stellar performance of the flagship models (a lot easier said than done) but it must deal with the far less reasonable and predictable Hydra of public expectation. For let's not forget that the great British public (and I'm sure they're not alone) like nothing better than a bargain. What they want is the performance of the benchmark

product at a fraction of the price. They want it, they expect it and they can get nasty if they don't get it. Well guys, I'm sorry to have to tell you, but dream on...

dCS are no Linn Products and as successful and respected as the Delius/Elgar/Verdi digital replay system is, it has neither the profile nor the market share of the LP12. But it IS a genuine (and very expensive) benchmark for the industry as well as a major player in the various debates regarding high-resolution digital replay. Its pro industry credentials do it no harm at all, and add that particular gloss that impresses certain important sections of the buying public. But no company can survive indefinitely on a three-box digital set-up that costs the wrong side of £20K by the time you factor in the Verona

external clock. Even allowing for pro sales you are talking about a finite market, so more affordable products were inevitable, if a rather long time coming.

It's that delay that has entrenched the public's view of dCS and in its own way, ensured a heightened level of expectation: expectation that could prove to be a ball and chain.

First of the new products to be released is the P8i, a £6500 integrated SACD/CD player. It will be followed in short order by the T8i transport and DAC8i converter, priced at \$5000 each. The entire range is of course, based on dCS's proprietary Ring-DAC up-sampling chip-set, as used in the Elgar, as well as sharing the same CNC-ed aluminium casework. No surprise there then, as commonality of parts and reduction in the amount of expensive

► casework required are tried and tested ways of reducing cost with minimal impact on sonic quality. However, from there on in it's all change, not least because the P8i puts the three separate functional elements of the flagship stack into a single box and runs them from a shared power supply. This is a sophisticated switch-mode set-up, which displays none of the pollution tendencies that so often afflict other such designs, demonstrating once again that it's not what you use, but how you use it that counts. Sound engineering strikes again.

Externally the plain, even austere front-panel conceals some rather neat touches. Beside the basic player controls is a menu button,

whilst around them are concentric 'light-pipes' that change colour depending on the player's status. If the machine is powered up but contains no disc they show green, red if it reads a CD and purple when an SACD is inserted. If you play a hybrid disc the P8i automatically defaults to the SACD layer, so you don't get to compare the two layers as yet. This may change as the new dCS models are all software driven, allowing various options to be accessed via the menu button. Free software updates can be loaded via CD-Rom. Currently, options provided include user selection of output level,

display brightness and absolute phase. The menu also displays the unit's serial number, software version, contact information for dCS and allows initiation of a software update, all via the main display. Finally, and most importantly, it provides the user with the ability to select the most appropriate (to his system and musical tastes) of the three different digital filter algorithms offered by the converter. What's more, and as dCS point out, the various filters offer a different view of each disc and it would be wrong to assume that a single setting will always offer the best results. This might sound like a recipe for audiophile nervosa but in practice,

it at maximum level automatically renders it sonically invisible due to its modus operandi. Digital volume controls have received a bad press over the years as reducing level also reduces resolution. However, used in the top ten dB of their range, they can be far less of an evil than the artefacts generated by many conventional analogue pots.

The inclusion of the volume pot makes a lot more sense once you look round the back of the new player. As well as the expected analogue outputs (both balanced and single-ended) there is a pair of digital inputs (one AES/EBU via XLR, one SPDIF via phono/RCA) and a master-clock loop. There are also corresponding digital outputs. In other words, and just like the Wadia 861SE, the P8i should actually be considered

as a digital control centre, a sophisticated DAC with three inputs, one of which just happens to be a built-in SACD/CD transport. Incoming data streams are handled by the Ring-DAC but additional software then up-samples all digital inputs to DSD before conversion to analogue.

Owners will have the opportunity to purchase additional software that allows them to bypass the up-sampling should they so choose.

In use, the P8i is not without its foibles, although for the most part they're easily assimilated. In common with most machines that use a CD-Rom transport, disc-handling is tediously slow, loading taking something like 20 seconds before the machine is ready to play. It also resents the overly rapid or slap-dash insertion of commands that other machines take in their stride. Instead, the integrated dCS demands a rather more studied, deliberate approach to disc replay. Once you get over your initial impatience I guess it becomes ►



the filter characteristics are readily learnt and it becomes second nature to assess whether a shift in setting will enhance a particular disc.

The final front-panel control is the large, rotary volume knob. This drives a digital volume control with a permanent readout of level on the main display. This allows users to connect the P8i directly to a power amp, as well as trimming output level extremely precisely. It cannot be defeated in the conventional sense, although running



## On filters and things...

Whilst dCS offer no details regarding the various filter algorithms loaded into the P8i, simply listening to them should make the differences pretty apparent. Once you get used to it, switching between them becomes second nature. Just remember that having set the required filter, simply using the 'volume down' or 'track back' buttons will take you directly to the Exit screen, thus bypassing the rest of the menu options and saving a lot of time and button pressing in the process. Also bear in mind that filters 2 and 3 operate in the PCM domain, meaning that if you use them while listening to SACD, you are potentially limiting both resolution and bandwidth.

It might actually help to think of the filters more in terms of a subtle tilt or tone-control as this is very much their effect. Not surprisingly, Filter 1 offers the best overall balance and greatest spatial and musical coherence. Filter 2 seems to lift the upper frequencies increasing the sense of air, focus and transparency. The presentation is wider and more forward, with a spot-lit, explicit quality, but this comes at the expense of weight, presence and musical momentum. The 'hi-fi' option? That's one

way to think of it, but with seriously murky discs it can certainly lift the performance clear of the mud and grime. Filter 3 does the opposite and lifts the bass, resulting in a warmer, rounder and more weighty presentation, ideal for bright or glassy recordings. However, the cost in this case is a slowing of pace and loss of focus and separation. Arguably kinder and cuddlier it also robs the music of edge, jump and bite. But, like all the other options, once you deviate from Filter 1 you risk disturbing the overall balance, coherence and musical fluidity of the piece. You might well ask why bother to include the various options, but some amplifiers, especially older, high-power designs can have real difficulties with the kind of wide bandwidth signals passed by SACD. In this instance the filters won't just sound better they might be the difference between a system that works and one that starts smoking – and you know that smoking damages your health as well as your bank balance. (There's also a Filter 4 although this is actually intended only for measurement purposes. Sonically it acts rather like a loudness button, adding a bit of mid-bass punch and welly, so what the hell, you might as well give it a go too, especially if listening at low levels.)

Perhaps the most astonishing thing is that whilst much of the aural impact of the filters is heard at low-frequencies, the algorithms actually impact on the extension and shaping of the high-frequencies – proof if ever you needed it that top and bottom must work in balance with each other. If you do find that overall you prefer the sound of one of the other filters it might well indicate a balance issue within the system or more likely, a positioning issue with the speakers. Check it out and see by moving the speakers in a systematic fashion. The other culprit could easily be the match between main speakers and a sub-woofer if you use one. Either way, experiment might well deliver a significant performance bonus that you weren't expecting. One accessory that I've used for years, so much so that I rarely even question it these days is the Statmat. But, popping it into the drawer of the P8i produced such a dramatic improvement in the body and presence of instruments, their texture and sense of harmonic identity that it really is worth a special mention. Indeed, so effective is the Ringmat accessory that I'd consider it an essential purchase for all P8i/T8i owners. Order it, try it and see if you agree. You can always return it if you don't...

▶ something of a calming influence! Potentially more annoying is the recessed power socket on the rear panel. Whilst the thick plate affords some welcome structural integrity its narrow slots prevent the use of the large diameter IEC connectors which have become a de facto standard on high-quality mains leads. Those wishing to use such a lead will need to order or have it re-terminated with a more conventional plug. I just about managed to get a connection with a Valhalla mains lead, but it was a long way from ideal. Incidentally, the same narrow slot makes unlatching XLRs a test of ingenuity too.

However, one thing that deserves real praise is the incredibly simple and intuitive menu layout. Setting or altering the machine's operating parameters is simplicity itself, either from the front panel or the remote handset – and it's rare enough that I get to say that. The combination of the superbly legible

display, the straight-forward control logic and the extended operational time-span meant that for once I actually found myself using the elegant and well thought-out remote control.

Just like every other aspect of the P8i, there's rather more when it comes to listening to it than initially meets the eye. The variables abound: balanced or single-ended, output level, CD or SACD, various filters – it all has to be taken into account. Add in the fact that its thoroughbred nature makes its response to those variables even more critical than usual and not surprisingly it took a while to get to grips with the integrated dCS player. However, once I did I discovered an excellent performer shielded behind the symptoms of user-induced limitations. If you hear what's described here you'll know to begin looking for solutions.

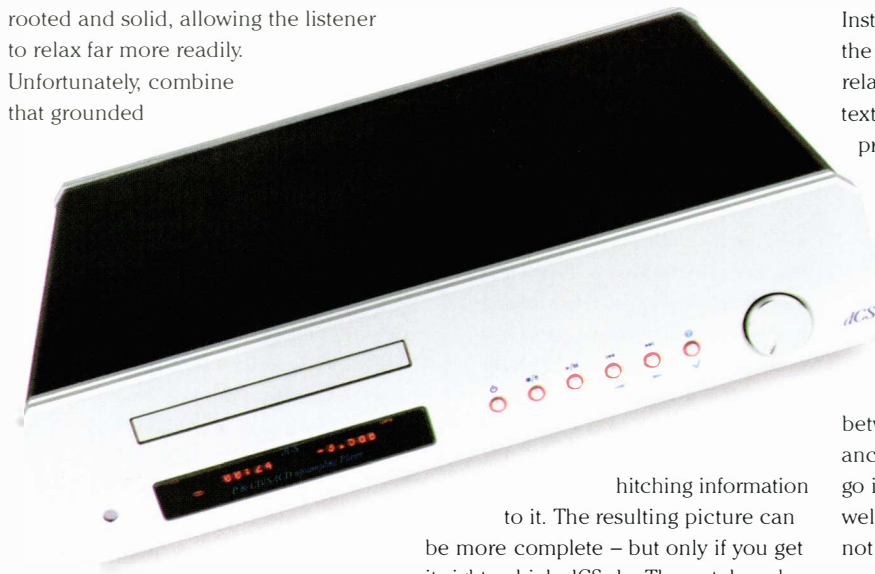
Let's start by talking CD replay. The first mistake I made was hooking the P8i up via its balanced outputs, as

recommended by dCS. Sorry guys but I've got to disagree. First listening to the player after its burn-in revealed a sound that was impressively muscular but dynamically and expressively two-dimensional. Working with various supports, the filters and the other output options I couldn't escape the dynamic flatness and lack of pace. Not until I finally tried the single-ended outputs that is. What an improvement: more life, more jump and micro dynamic texture, more colour, more agility and much more interesting music as a result. So, try the balanced outputs by all means, but don't assume they're the superior option. In my system, even with the fully differential VTL 7.5, the single-ended outputs sounded better.

With some sense of pace and dynamic range restored, things started to swing, which quickly revealed the second critical variable – level. Now in part, the P8i is its own worst enemy. Past experience with the Ring-Dac ▶

▶ suggests that its greatest strength is in fact the unusual stability that it brings to the sonic picture. Images replayed via this converter don't shift or shimmer the way so much digitally derived music does. It's something we tend to live with, something we don't notice until it's gone. It's also not to be underestimated. That lack of stability is remarkably unsettling when listening. In stark contrast, the Ring-Dac sounds rooted and solid, allowing the listener to relax far more readily. Unfortunately, combine that grounded

the Du Pre, Elgar *Cello Concerto* or more recent offerings from the likes of Reference Recordings. That firm setting provides a perfect base for the impressive detail delivered, making sense of it, enhancing the overall picture rather than simply firing it at the listener. Here, the player builds the picture piece by piece from the ground up, rather than seizing on the musical flow and



quality with any lack of dynamic zip and the result is an exaggerated sense of sloth and musical lethargy. Playing discs on the P8i you rapidly realise that the volume level is absolutely critical. Too low and the life just ebbs out of the performance, too loud and it starts to glare and shout. The window in which everything suddenly clicks is surprisingly narrow.

However once you get things just so (and remember that you've got variable output level, a digital volume control and a 'loudness' filter to help) what you hear is both impressive and engaging. Building on the solid foundation of that remarkable stability, the P8i projects music with real substance and power. It manages to convey the scale and sweep of full-orchestral music with real poise and authority, whether older material like

hitching information to it. The resulting picture can be more complete – but only if you get it right, which dCS do. The patchwork of orchestration behind Du Pre's solo instrument that builds with wonderful inevitability into the first sweeping crescendo of the Elgar is revealed both in its subtle complexity and its emotive power, the elements unravelled without the meaning being pulled apart or diminished. In comparison, lesser players sound muddled and positively weedy.

It's not until you move to smaller scale works that you start to stretch the limits of the player's potential. Playing Mina Agossi's wonderful rendition of 'Ain't Misbehavin' (*Zaboum!!* Candid CCD 79800) the P8i delivers a predictably powerful view of the drum and bass accompaniment, but you soon realise that there's something big-boned and lacking texture and shape when it comes to the playing. The instruments seem to wrap around the

vocal, starving it of space and independence: it swings but it doesn't captivate the way it does live or on the Wadia 861SE. In fact, comparisons with the far more expensive Wadia are instructive, for this is very much the performance ballpark in which the dCS is playing. What is revealed is two-fold. Firstly, the P8i does not separate instruments and voices to the same extent as the Wadia, tonally or spatially. Instead, they tend to expand to fill the available space. Secondly, and related to this effect, there's a definite texture that overlays the player's presentation. I'd describe it as similar

to vellum, soft and smooth but with a characteristic colour.

It's a little like sepia on a photograph but nowhere near as obvious, and like sepia it acts to diminish dynamic contrast and create a consistency or sameness

between different views (or performances). Familiar vocals are the way to go if you want to isolate the texture as well as its effect: Once identified it's not hard to hear.

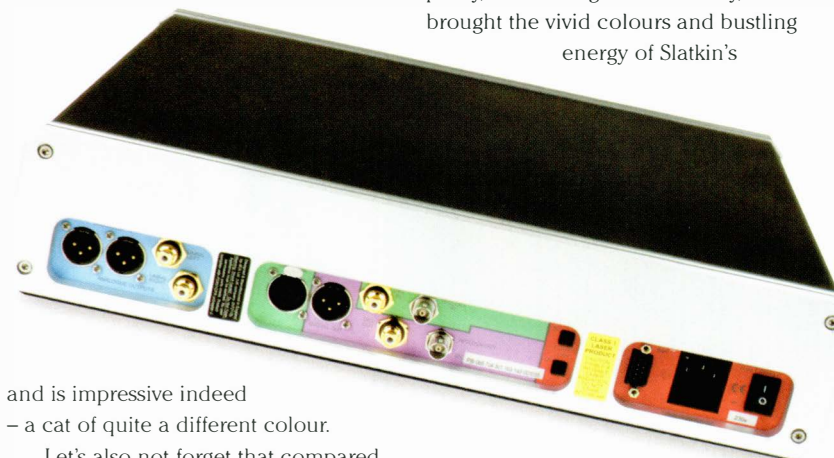
Now, let's not get carried away. The sepia analogy is an exaggeration but one that demonstrates the influence this texture brings to the musical performance. The result is a narrowing of instrumental identity and colours, and a smoothing over of the lowest level rhythmic and expressive catches. This is in no way unpleasant and simply favours majestic power over intimacy, scale over micro detail. Once again, it's diminished by the correct selection of level, but it helps to explain why the difference between "so what" and "just so" is so finely wrought with this machine. I've spent the time describing these shortcomings precisely because they are so readily minimised: hear them and it's a warning shot across your aural bow – you're simply not realising the player's potential. Interestingly, while earlier incarnations of the dCS flagship ▶



► units were described by those who didn't like them as "dynamically flat" and "adding a glaze" it becomes possible with hindsight to suggest that this was probably due in part to the same set-up issues that effect the P8i, even if the texture noted was different. More telling still, the latest dCS stack, with the addition of the Verona master clock, shows none of these tendencies

medium. There's a wonderful fluidity, an unimpeded sense of enthusiastic momentum to musical proceedings from the high-resolution format. Transparency, focus, separation and perspective are all both natural and exceptional, with the complex rhythms of Aimee Mann negotiated with equal ease to the subtle micro-dynamic inflections of *Yola*. The pristine tonal purity, devoid of grain or overlay, brought the vivid colours and bustling energy of Slatkin's

seems too good to be true. An extremely good CD player and a superb SACD player, I suspect the dCS will easily hold its own, especially when the price, the range of options and the future proof nature of its software package are taken into account. Indeed, the P8i is perhaps best viewed as a work in progress; the neat trick is that with dCS's superb reputation for customer support and the easy functionality of software upgrades, getting the benefits of that progress will be practically and financially painless. This player isn't the flagship set-up on the cheap and stands (and should be judged) on its own, considerable merits. Oh, and for once, I'm sure the company name won't hurt either... ►+



and is impressive indeed – a cat of quite a different colour.

Let's also not forget that compared to lesser machines the P8i has nothing to fear. In putting it up against the Wadia we're both recognising its inherent quality and putting it at a severe cost disadvantage. The big American machine offers greater separation, a wider tonal and expressive palette, but it doesn't match the dCS for sheer substance or scale. And it doesn't play SACDs either, which is where the P8i really scores.

As soon as you drop a hybrid disc into its draw, the concerns outlined above simply drop away. Indeed, one of the reasons that I've gone to such lengths to pin down the precise character of the P8i's up-sampled PCM replay is that it's in such stark contrast to its SACD performance. With DSD there's no subtle texture overlaying the music, no muscular clumsiness or lack of rhythmic sophistication. Indeed, the sheer, sure-footed agility and innate sense of balance that the little dCS machine brings to SACD compares with the best I've heard from the

*American In Paris* to noisy life (Mo-Fi UDSACD 4007 – and another stormer from MFSL) while more contemplative moods were traversed with a deft and graceful hand. The P8i rams home the performance advantages of the newer format without mercy or favour, although it does leave me wondering what the CD replay might sound like without the 'benefits' of up-sampling – something which will become apparent soon after this review goes to press. The software package to disable the up-sampling is now complete so I'll report back next time.

With a new generation of stereo-only SACD machines appearing (not to mention audiophile multi-channel players from the likes of c-j and Townshend) the P8i is entering a crowded market place. With both the latest Townshend and Ayre players currently under review (by AS and CT respectively) the opportunity to get all three machines side by side

#### TECHNICAL SPECIFICATIONS

Type:	Integrated SACD/ up-sampling CD player
Chipset:	dCS Ring-Dac for PCM DSD for SACD
Digital Inputs:	1x AES/EBU (XLR) 1x S/PDIF (RCA/phono) 1x Word Clock (BNC)
Digital Outputs:	1x AES/EBU (XLR) 1x S/PDIF (RCA/phono) 1x Word Clock (BNC)
Analogue Outputs:	1pr balanced XLR 1pr single-ended RCA/phono
Output Level:	2V or 6V (user selectable)
Dimensions (WxHxD):	428 x 93 x 389mm
Weight:	15 Kg
Finishes:	Silver or black
Price:	£6500

#### Manufacturer:

dCS Ltd  
Tel. (44)(0)1799 531999  
Net. [www.dcsLtd.co.uk](http://www.dcsLtd.co.uk)



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# Cyrus Deliver The Goods...

## The DAC-XP Pre-amplifier and Phono-X Phono-stage

by Chris Binns

If it looks good, touch it. If it feels good, use it. If it works well and does what you want, buy it...

Way back in my days as an aspiring art student, I attended a guest lecture by a highly reputable industrial designer who felt that the above statement neatly summarized the 'ideal' approach to buying a product, regardless of whether it was a domestic appliance or a car. Even at that stage, I remember quietly thinking to myself that here is a man who has had little experience of the hi-fi industry, where almost the reverse applies. A lot of enthusiasts are prepared to put up with something that the dog wouldn't eat its dinner off and is an ergonomic disaster just so long as it sounds good.

I am not one of those people. Cue hoots of laughter from anyone who is reading this and has been in my living room, which frankly, is at times a magpie's nest of hi-fi. My excuse is that reviewing audio equipment means that there is almost always a constant flow of gear through the house, with all the cabling and mess that goes with it. Were it not part of the job description I would be a happier man, and one of the most frustrating things is to get a system that is working really well, tidy up all the cables and have it looking neat orderly, only to have to rip it apart when the next item comes in for review. Which is why I dream of small boxes. And partly explains my initial fascination with Cyrus products; I love the concept of these small, high performance packages that present an assuredly elegant face to the

world, not to mention the level of flexibility that a modular approach can provide (assuming of course it has been well thought out at the onset). Am I describing a secret yearning for some lifestyle product that should be adorning the pages of the kind of magazine you find in dentists surgeries? Just supposing I was, does that immediately strip it (and me) of any 'audiophile' credentials? There are those that feel almost by definition that the two are not mutually compatible, which can be a problem when you are a company that make both high quality multi-room systems and great sounding separates. That is why it is worth taking a closer look at Cyrus to get a better understanding of what it is they do, and what drives them.

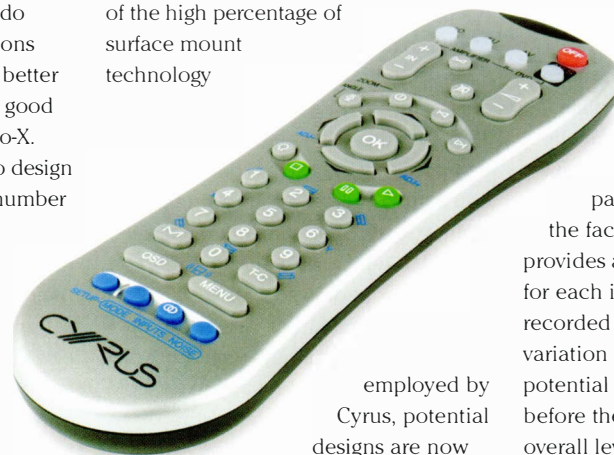
Cyrus came into being as the electronics division of Mission, who although they had produced something in the way of electronics under that name, were best known as a manufacturer of loudspeakers. While the Mission 778 amplifier was the first product to appear in the form of the now familiar 'half width' enclosure, it was the Cyrus One that introduced the brand name in the mid-80s and laid down the template for future products by incorporating a number of features that gave it considerable audiophile status despite its budget price. The use of plastic casework, specialist components and a passive line stage coupled with a competent moving-coil phono input (at a time when the competition was strictly moving-magnet) added up to a performance that was exceptional for

the money, and established Cyrus as a name to watch. With the launch of the more powerful Cyrus Two, the concept of improving performance with an external power supply was added to the hand, and has subsequently become a key building block in the company's modular approach to system design. The early-90s saw the launch of the Cyrus Three, quickly followed by the Disc and Dac-master. These were the first products to utilize the specialist die-casting that has formed the basis for all Cyrus products through to the present day. Something of an engineering feat in itself - the pressures involved in injecting the material are enormous - it offers an elegant, stable and consistent enclosure for the varied electronics within, its universal application going some way to ameliorate the frighteningly large investment for tooling. The next few steps in the company's history are a little complicated, but essentially Mission bought loudspeaker manufacturer Wharfedale and became Verity PLC, who then bought up various 'ailing' audio companies such as Quad and Roksan. At this time, the group created a central research and development facility allowing a significant investment to be shared between the brands, and out of this emerged the new flat panel loudspeaker technology that was to become NXT. By the late nineties, pressure was mounting from the shareholders for Verity to consolidate its interest in NXT, so the non-core audio businesses were sold, while with the addition of selected members

▶ from the V-Labs team now on board, Cyrus became a separate independent company.

The final step in the Cyrus story came around a year ago, with a management buy-out. Headed up by the enthusiastic Peter Bartlett, not only do they have immense dedication, driven by a passion for their work, but a heritage that goes way back into the depths of Huntingdon's hi-fi history, having collectively done time with companies such as Lecson, Cambridge, and of course Quad. This coupled with a unanimous decision by the major shareholders to reject business funding that would bend the company out of shape, allows a degree of freedom in what, and how Cyrus choose to do things, without the fear of decisions being dictated by (for want of a better expression) the men in black. A good example of this is the new Phono-X. The team decided they wanted to design a phono-stage purely because a number of them are keen on listening to records, knowing full well that, despite the current healthy interest in vinyl, it is hardly going to sell in the same quantities as say, a CD player. In a more conventional company set up, the chances are that the marketing and financial side of the company would respond to this suggestion by saying "You want to produce what?" Cyrus have gone ahead and done it anyway, although I should mention that they are lucky enough to have a financial director in the form of Simon Freethy, a confirmed audio enthusiast. Another example of how the company works; I know that deep within the factory there is a Cyrus employee who has been quietly working on a project of his own, and if all goes well there is every chance that this product will see the light of day. If and when it does, it will have been because of the passion and interest that is abundant rather than an order from some marketing executive.

With all of this combined experience, it is no surprise that the Cyrus facility appears to run with a degree of smoothness and efficiency that is second to none. Management, design and production facilities are all housed under one roof, and during a recent visit I noticed that there was a consistent atmosphere that I can only describe as relaxed but focused, from those responsible for assembling component parts through to the sales team working in the office. The design team operates from a suspiciously tidy area. I was disappointed not to see rows of benches with wires and components strewn all over the place but hey, this is the 21st century, and because of the high percentage of surface mount technology



employed by Cyrus, potential designs are now produced by CAD

on boards for evaluation. Early on, a decision was made to have all printed circuit boards manufactured and assembled outside of the factory, which means the production facility is surprisingly compact for the volume of units they produce. The disadvantage of this is that it is more difficult to keep an eye on every aspect of production, so to overcome this specifications have been tightened to unprecedented levels – any changes have to be approved well in advance by Cyrus who will, for example listen to a substitution of a single capacitor to ascertain that it does not alter sonic performance before giving the go ahead to the sub contractor. The demands

placed on suppliers pay dividends elsewhere; it was only when talking to production manager Darren Marjoram and staring at a row of toroidal transformers that it occurred to me that in all the Cyrus product I have tried, I have never encountered a noisy transformer, a problem that I frequently encounter with other equipment due to the quality of the mains where I live.

The assembly process is equally stringent. Each product is progressively built by several people along a production line which allows inspection of not only the current process, but all that have gone before. These are then ticked off on a card that follows the unit from initial inspection of the casework and sub assemblies through testing, running-in and final check before packaging, even then it is kept as a record for that particular unit once it has left

the factory. This system not only provides a high level of examination for each item; because it is closely recorded it exposes any trend for variation in components so that potential problems can be spotted before they become critical. The overall level of quality control and attention to detail is really quite impressive, and leads to a high level of consistency and reliability, and I know in my capacity as a reviewer that not all manufacturers are this diligent.

The range of electronics is now pretty extensive, with products that cater for a number of distinct areas. The heritage of the original Cyrus designs is still firmly in place. The entry level integrated amplification and CD players offer a taste of high-end performance within the budget sector, along with the option of two directions for expansion: factory fitted upgrades and/or the addition of PSX's and power amps. And the same applies to the AV products, which offer similar levels of performance in their field. ▶



▶ At the next level of amplification where we get to pre-power combinations, there are again a number of different upgrade paths, dictated to some extent by the nature of the system. However, in my opinion, once you get to the level of using the Mono-X power amplifiers, PSX R's are an essential addition to all source components. While all of the top line Cyrus products work superbly as a collection, I have been using various of the components separately in very different systems for a while now, where they have been perfectly at home amongst quite illustrious company, all well regarded by the 'purist' audiophile community.

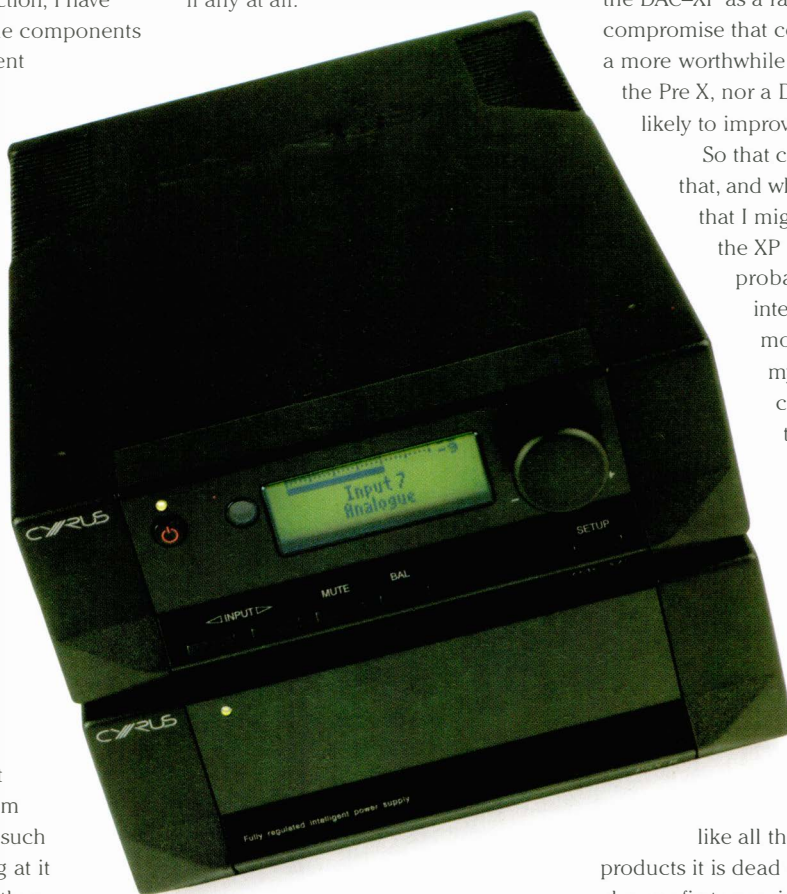
While I should admit to burying my head in the sand regarding new music formats until fairly recently, my alter ego in the recording industry has had its face well and truly smacked up against the glass of late. Yes, I do worry about the predominance of MP3 as a music carrier, but at least I can take heart from the fact that companies such as Cyrus are also looking at it along with the various other technologies that are all part of the general blending and knocking down of barriers between audiophilia and 'home entertainment'. The two Cyrus linkservers offer high quality potential for multi room installations and all that goes with it, with, as ever the option to upgrade with extra DAC-X's for improved quality. If the company that makes products such as the Phono-X and the DAC-XP are prepared to get their hands dirty, there is hope, because

I know that the heart and soul that goes into the production of a Mono-X power amplifier is also evident in their multi-room products.

And they are such neat little boxes.

### The DAC-XP Digital Pre-amplifier

I must confess that when I was first told about the DAC-XP I was unable to generate much enthusiasm, if any at all.



As far as I was concerned, Cyrus had a pretty good pre-amp in the shape of last years Pre-X, a design that had metamorphosed from the good but not blinding ACA-7 and 7.5 to become a worthy partner for the excellent mono-blocs. A new pre-amp with a DAC in it? Uh, why? From a personal perspective a pre-amplifier has to deal with analogue inputs, no more and no less. While at various stages I had played around with

separate CD transports and DACs a few years ago, when there was a definite fashion for upgrading players with external DACs, most of the machines that I have chosen to live with have been integrated. If two-boxes are used then they have segregated the workings in a different way, such as the little Resolution Opus which still continues to charm. So I regarded the DAC-XP as a rather suspicious compromise that could be neither a more worthwhile pre-amp than the Pre X, nor a DAC that was likely to improve my CD player.

So that could have been that, and when it was suggested that I might like to review the XP I replied that it probably wasn't of much interest to me; or more accurately, that my system wasn't configured in a way that could explore its potential. Several things happened to modify my viewpoint. Peter Bartlett sent me one anyway, and one evening I couldn't resist unpacking it for a look. . . . And of course

like all the other Cyrus products it is dead neat; this was also my first experience of the 'new' textured black finish which I'm afraid just looks sexier than either the aluminium or what Cyrus used to call black, and is in my book, brown. As I had got the Mono-X's out for a run anyway it seemed churlish not to fire the XP up and give it a go, more out of curiosity than anything else. One other significant factor was that I gather there is now a modification to the pre-amps termed 'VS'; this has been incorporated into the

▶ XP. We all know that you should never judge a product out of the box, running in and warming up is so important. Using it just as an analogue pre-amp, and jumping straight in with a PSX connected, I was surprised by the fact that this little box of tricks sounded really quite impressive, to the extent that I thought it was only fair to do the job properly, but more of that later.

You should know, because it is pertinent to this review, that I have recently been a little more vocal about my feelings toward

Apple's lossless system for downloading is eminently preferable to MP3. Ergo, I am probably more in touch (or 'hip' if you like) with the current generation in terms of listening trends than I have been for some time, (despite several years of teaching) and this coming from someone who works in the music industry... Damn it, I actually played a game on a Sony Play station – and lost to an eight year old – who insisted that the sound went through my hi-fi. Which brings me back to the DAC-XP.

The digital side of this product is not

to investigate. I guess someone else will have to comment.

Meanwhile, the XP has been doing a pretty good job of impressing me with its virtues as an analogue pre-amp. I hate to say it, but it is better than the Pre-X, although this could well be down to the addition of the VS circuitry; at this stage I don't know. I have been getting some pretty fine results (unusually) using the balanced outputs into a couple of pairs of Mono-X power amplifiers, where rather like the phono-stage I think the sound is warmer than previous Cyrus designs. But I am getting ahead of myself – you need to know what the DAC-XP can do.

The XP is equipped with no less than six digital inputs (two optical, four S/PDIF co-axial) together with two analogue inputs,



the general onslaught of crap quality digital. The rise of MP3 and the possible demise of SACD (and anything else that might redress the balance) leave me with the depressing feeling that generally – and I mean the mass market, not hi fi nuts – the industry wheels that turn are reducing the level of quality in favour of economics, and most average people don't give a damn. So why is this relevant to this review? Well, if you are going to stamp your feet and grumble about something it is as well to be reasonably informed; to that end I have been listening to a far wider range of digital material than I would do normally, while exploring the possibilities of iTunes and pods and such like. Gadget fascination aside, it's not all bad: for example the use of

just about upgrading a CD player, but also maximizing the performance of dubious and less well engineered digital sources, of which there seem to be an increasing number. Having looked at the problem, Cyrus have devised an innovative system that examines the incoming digital signal and adjusts various parameters accordingly... Much as I would like to go into further detail my limited understanding of such matters was not enough to glean the whole story from a short conversation. Remiss of me I know, but as my household is lacking in such sources as satellite and AV it is an area that I am unable

all of which are programmable for name, the latter also for sensitivity. Outputs comprise optical digital, fixed level DAC, and in the analogue domain two sets of RCAs complemented by two sets of XLR balanced. While these have been missing from Cyrus pre-amps recently, the company make a point of the fact that the XP is a fully balanced design, and as someone who usually favours single-ended connection over balanced I can testify that it works well. The general menu is straightforward and intuitive to use. ▶

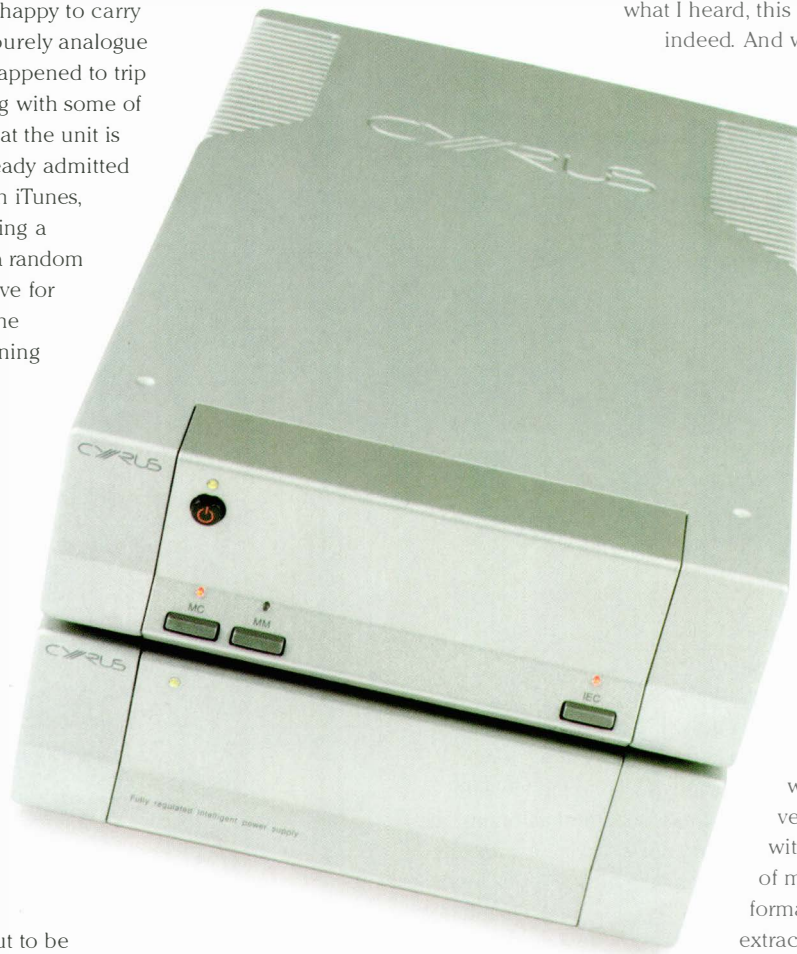


► Also available is a phase invert mode (shame there isn't a mono option) as well as two settings for roll off of the digital filters which I shall come to later. Relevant information is shown in the display and it comes with a monstrous but effective remote designed to control an AV set-up as well.

While I was quite happy to carry on using the XP as a purely analogue pre-amp, two things happened to trip me into experimenting with some of the digital wizardry that the unit is capable of. I have already admitted to playing around with iTunes, where the idea of having a hundred albums and a random button is quite attractive for when you are not in the mood for serious listening or you are doing the washing up. Using my Apple laptop, a little box that provides digital output from the fire-wire socket, and a range of music burned with Apple lossless (as opposed to AAC or MP3) the results were really (and it hurts to say it) not bad. I had expected that it would pass muster as background music, but in fact it turned out to be more engaging than that, particularly with the excitement of an endless random selection. I must be going soft in the head...

What was more unexpected was hooking up a Philips DVD 963 SA player to the Cyrus. A considerable bargain, not least because of its inclusion of both DVD and SACD capabilities, combined with a quite surprising CD performance. In essence, combined with the XP it sounded like a true high end player, with a beautifully

sweet and refined performance together with dynamics that could blow your head off, a little reminiscent of a Helios machine from a few years ago, one of the liveliest players I ever encountered. While I do not have the room here to go into detail about what I was hearing,



this experience gave me a bit of a kick up the backside, and I shall be investigating further.

I genuinely thought that I was probably not the right person to be reviewing the DAC-XP, an opinion that in some ways hasn't changed. There is a hell of a lot that this product can do that I have not been able to touch on; but even so it has been great fun, and I have learned a lot. The analogue side of the pre-amp is pretty damn good,

and shows a continuing development in what Cyrus can do in this area, which bodes well for the new Pre-VS. Pleasantly surprised as I was by the warmer, more inviting balance of its analogue stage, the real surprise for me has been playing around with the DAC side of things. Judging from what I heard, this was very impressive indeed. And while I have no

intention of running out and buying a Playstation, living with this particular Cyrus has encouraged me to investigate possibilities that I would have not have normally entertained, which has to be a good thing and a definite bonus. For those who are more multi-media minded than myself, the DAC-XP represents a new benchmark when it comes to versatility combined with optimized playback of myriad different digital formats. The potential for extracting higher quality from disparate and often disappointing digital media seems very exciting indeed.

### The Phono-X

I can't remember exactly which high end manufacturer it was who said it, and I apologize if I have got it wrong, but the quote went something like this – "It was only after designing the phono-stage that I really learnt how to make good sounding amplifiers..." While almost every aspect of

▶ electronic design has its own mysteries and quirks, getting good results from circuitry that has to deal with the miniscule voltages that are the product of cartridges (in particular the moving-coil variety) presents a unique set of problems that might well go unnoticed in, say, a power amplifier. To illustrate the point, by the time the signal reaches the loudspeakers we are talking tens of volts; the input of a phono-stage could be expected to amplify levels of the order of a million times smaller. Suddenly you can understand why noise levels are so important, and criteria such as earthing, layout and power supply become critical.

Which just goes to show how wonderfully perverse the hi-fi industry can be. Twenty-five years ago, when we relied on vinyl as the main source for recorded music, phono-stages were built in to pre-amps and were given little consideration on their own. Now, playing LPs is considered 'specialist' and there is an incredible range of products from large, full size boxes to the small undistinguished looking 'ancillaries' that you are never quite sure where to position, and usually end up falling off the back of a shelf in your rack. The Cyrus model belongs in the former category. It is reassuringly solid and with the PSX the two units occupy a standard shelf space; do not be tempted to stack them as this is likely to induce hum.

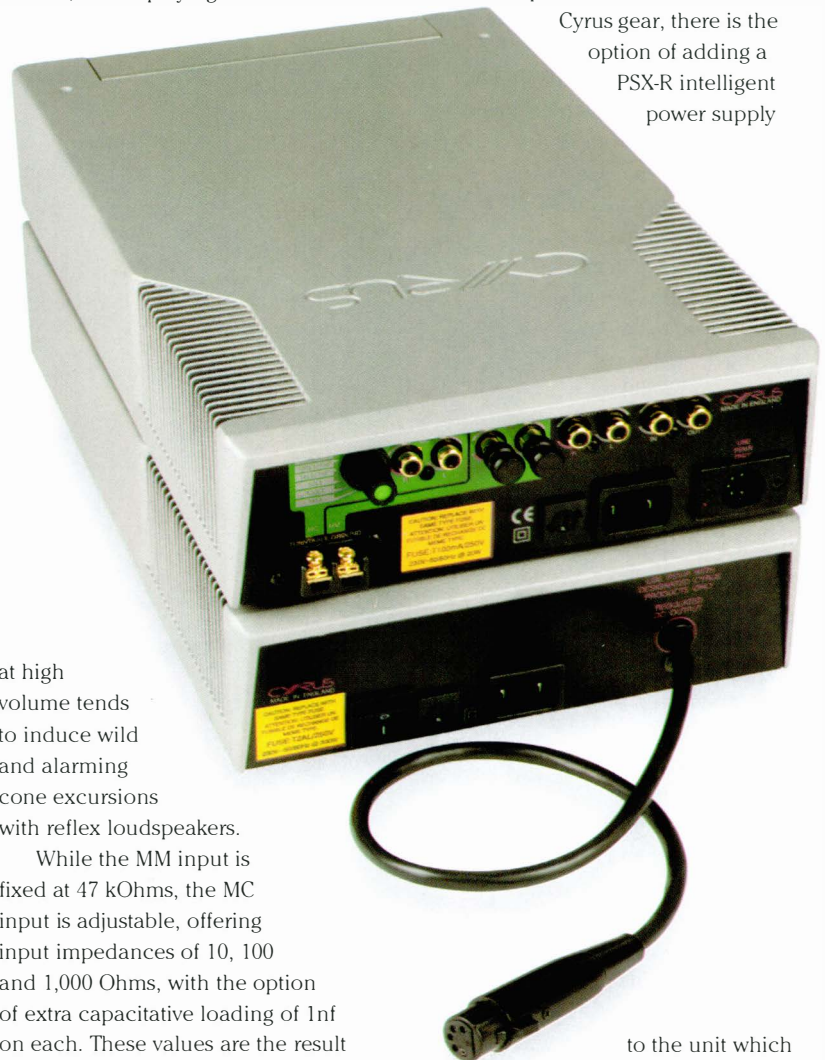
The Phono-X aims to be pretty flexible in its use. Separate moving-coil and moving-magnet inputs are provided, selectable from the front panel which is a bonus for me as I often have a secondary turntable for playing 45s. To be able to dispense with interchanging leads and/or step up devices after a few bottles (sorry, glasses) of wine is a real luxury. Also on the front is the standby switch (I advise leaving the unit on permanently) and a further button labeled IEC. This offers an alternative

to the traditional RIAA playback equalisation which, although I am not too sure about how and where it fits in historically (European EQ as opposed to American?) seems to offer a bit of low-end bass cut with a sharper roll-off. Practically it proved very useful in certain situations, such as 12" singles with over enthusiastic bass and warped records, where playing

at high volume tends to induce wild and alarming cone excursions with reflex loudspeakers.

While the MM input is fixed at 47 kOhms, the MC input is adjustable, offering input impedances of 10, 100 and 1,000 Ohms, with the option of extra capacitive loading of 1nF on each. These values are the result of research by Cyrus; I am surprised at the lack of a 470 Ohm setting. Not only is there a large group of cartridges designed with this figure in mind – the Supex/Asak/Linn generation amongst many others, but the Lyra Helikon SL which I use is designed specifically for this loading with Naim amplification

in mind. Input sensitivity is fixed at a useful 0.39 mV, which should provide enough gain for a reasonable range of cartridges; certainly I had no problem with the relatively low output SL at 0.22mV, helped no doubt by the low noise levels. Output is via a single pair of unbalanced RCA sockets, along with two decent screw terminals for earth points. As with most other Cyrus gear, there is the option of adding a PSX-R intelligent power supply



to the unit which then offers dedicated, low impedance rails purely for use by the amplification circuitry, potentially raising performance. Internal construction is neat and tidy, with the extensive use of surface mount components of considerable benefit when it comes to layout of ▶



► sensitive circuitry. Running-in protocol seems to dictate that the lower the operating level of a device the more time it needs to iron out. So I decided to cheat a little by plugging it into a sweep signal generator with 1mV coming out of it for a few days before plumbing it into my system.

First things first, and as I have already mentioned, the X has a very low level of noise, possibly one of the quietest phono-stages that I have used, which apart from the obvious benefits to sound quality increases its versatility. It is also worth mentioning that it is impeccably well behaved, with no nasty thumps during switch on or when changing functions.

While I do not wish to labour the point, I was caught between setting the Phono-X at 100 Ohms, with tighter bass but slightly closed in treble and 1k, which was more open but with a less well defined bottom end. Subtle differences, but enough to highlight the importance of correct matching, and to be fair I ended up toggling between the two with different records. If I was a purchaser I'd certainly take advantage of the ability to specify the loads required, and for me 470 Ohms would be one of them.

The Phono-X has a warm, immediately inviting sound with an image that is both 'big' and three-dimensional. In some respects it's not typical of the character that I have come to associate with Cyrus products, which tends to the quick, clean, clear and controlled at the expense of some leanness. Here, dynamics were a little on the lazy side, and while most of the detail you would expect is there, it is not as finely etched as I have heard with the Tom Evans Micro Groove.

But of course the PSX-R makes a hell of a difference. Maybe it just comes down to supplying that low-level circuitry with cleaner power, but it is one of the most dramatic upgrades that I have heard from a power supply. Everything is cleaner,

more distinct, more dynamic and more direct, without losing the real sense of flow that seems to capture the essence of good analogue sound. There is still an element of warmth to the sound, but the better focus and articulation means that it never becomes too sweet or lush. Did I mention timing? I'm not saying that it was missing without the addition of the PSX-R, but plug in the extra box and it falls into place; not over accentuated or oppressive, but ready to get up and go when the music demands it. There is also a sense of far greater bandwidth, and although I cannot think why, surface noise was less intrusive, while a greater sense of dynamics seemed to allow better perception of layered instruments. The detail that was previously reticent was now beautifully resolved; perhaps not quite in the class of Mr Evans The Groove, but not far off. One minor point; it would seem as if the power supply benefits from a bit of warming up as well; after its initialization, the sound continued to improve for several hours.

Standing alone, the Phono-X is a competent enough unit that offers a good all round performance with a big, warm presentation that will appeal to many; the fact that it is not the last word in resolution is one of the trade-offs, and there are other units of a similar price that will tip the balance the other way. That it offers ease of use and a high degree of flexibility as well makes it good value for money and it should definitely be checked out.

But...


Considered as one half of a package with the PSX-R, it becomes a completely different proposition. The addition of the outboard power supply projects performance into another league. Much, much more so than the extra cost would suggest.

Its real strength lies with a fine balance of attributes that make listening to vinyl exciting, just as it should be. Consider seriously. ►+

#### TECHNICAL SPECIFICATIONS

<b>DAC-X</b>	
Type:	Digital pre-amplifier
Analogue Inputs:	2x single-ended RCA/phono
Sensitivity:	200 mV
Impedance:	47 K Ohm
Digital inputs:	4x S-PDIF RCA/phono 2x Tos-link optical
Sensitivity:	500 mV P - P
Impedance:	75 Ohms
Outputs:	2pr single-ended RCA/phono 1pr balanced XLR
Output Impedance:	300 ohm
Output Voltage:	4.4 V 8.4 V balanced
Dimensions (WxHxD):	215x75x365mm
Weight:	6.5 Kg
<b>Phono-X</b>	
Type:	MM/MC phono-stage
Input Sensitivity:	MC 0.39 mV MM 5mV
Input Impedance:	MC 1 kOhm, 100 Ohm, 10 Ohm (or user defined) MM 47K Ohm
Output Voltage (nominal):	370 mV
Output impedance:	47 Ohms
Dimensions (WxHxD):	21 x75x365mm
Weight:	3.1 Kg
Finishes (all):	Black or silver
Prices -	
DAC-XP	£2200
Phono-X	£700
PSX-R	£400
<b>Manufacturer:</b>	
Cyrus Electronics	
Tel. (44)(0)1480 435577	
Net. www.cyrusaudio.com	

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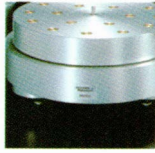
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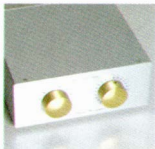


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Tom Evans Audio Design

THE LINEAR



THE LINEAR



# The Tom Evans Audio Design Linear B Hybrid Mono-bloc Power Amplifiers

by Roy Gregory

If it walks like a duck and it quacks like a duck... At least so goes the old adage. Except that in hi-fi we seem to make a virtue of things not being quite what they seem. In Issue 38 I was surprised and impressed by the sound (if not the appearance) of the Linear A amplifier from Tom Evans Audio Design. You, on the other hand, were probably not surprised at all. I do, after all, have significant form when it comes to being seduced by the products emanating from the pen of Mr Evans, dating all the way back to the original Finestra pre-amp. But the Linear A was a step further than I was expecting towards the ultimate goal. Prepared for its sonic performance by The Soul, I expected something sonically similar but with a more approachable price-tag. Indeed, all external cues suggested exactly that, from the brutally functional casework to the use of multiple EL84 output tubes. What I actually got was something that added significant stability and authority to the astonishing resolution and transparency of The Soul, whilst also adding an extra dollop of power and halving the price in the process. It might have walked like a duck, but it sang like a nightingale!

I mentioned in that review that the rather peculiar name of this particular ugly duckling was down to the imminent arrival of a second, more powerful beast, the Linear B. This, it was promised, would use a different and even more novel topology to deliver both greater power and performance and it's the animal we now have before us. Now, over the years I've learnt to take Tom's

claims with a pinch of salt. Not that he doesn't deliver – indeed, quite the contrary. However, he does exhibit a fearsome focus that occasionally results in two steps forward in one performance domain and one step back in another. It's a tendency that's led me to wait for the proof of the pudding, despite the seductive menu. Well, in the case of the Linear B it's a wait that's well worthwhile.

Externally, the mono-bloc appears identical to the stereo chassis, with only the single set of input and output socketry on the rear panel to differentiate them. The Linear B uses the same heavy duty and highly practical casing that shrouds its little brother, which means that you'll need sufficient space to accommodate a pair of 19" wide and foot-high units. Once again, the thermal efficiency of the casework obviates the need for a fan, despite its all-embracing nature. The other good news is that doubling them up somehow makes them, if not exactly attractive, then certainly far more acceptable. Indeed, with three identical boxes on hand (two Bs and an A) the effect is quite striking. So much for the outside...

Inside, the Linear B is a whole new ball game. It uses the same composite EL84 output configuration, but this time in a fully differential, push-pull circuit topology. But this is unlike any other balanced circuit out there. The feedback arrangement is mirror imaged too, resulting in differential global feedback, or in effect, an "error correcting" amplifier. Any deviation in the signal (or output transformer) is present, inverted on the other side of the circuit,

combining to cancel at the output. Now, whilst zero-feedback is fashionable at present, don't get sucked into the anti feedback knee-jerk brigade. Too much feedback is very definitely a bad thing; that doesn't make too little any better. In fact, all amps have an optimum feedback figure. For some it is indeed zero, for others it isn't. Whilst both the Linear A and B are inherently stable and will happily run without global feedback, a small amount (in the case of the B we're talking 6dB) delivers disproportionate benefits. Not only do you get the corrective nature of the circuitry but you get lower output impedance too and that means the amp will drive much better. The result is an operating range for the output transformer of 3-16 Ohms, making it far more versatile than the Linear A with its 5 Ohms operating window. Also, and for the first time, the Linear B can be supplied with a balanced input. This must however be specified at the point of order.

So, what does the Linear B deliver in musical terms over the already impressive performance of the A? Well, the short answer is POWER – but not necessarily in the sense you're thinking. Sure, 55 as opposed to 25 Watts is a healthy increase, a veritable pile-driver in terms of the EL84 output tubes, which goes a fair way to overcoming the practical limitations of the A when it comes to loudspeaker matching. Still, no one in their right mind is going to run the B with a pair of Eidolon Diamonds or a big B&W JMLabs Utopias (or the fascinating new Electras) on the

▶ other hand, would be well within the mono-blocs' compass and I'd love to hear them driving a pair of Coincident Total Victories.

But the power to which I'm referring is something of far greater subtlety than mere numbers; it's musical power. The power, if you like, to command, to convince and above all, to communicate.

In an unaccustomed bout of nostalgia I've recently rediscovered the Vivaldi *Gloria*. My record dates

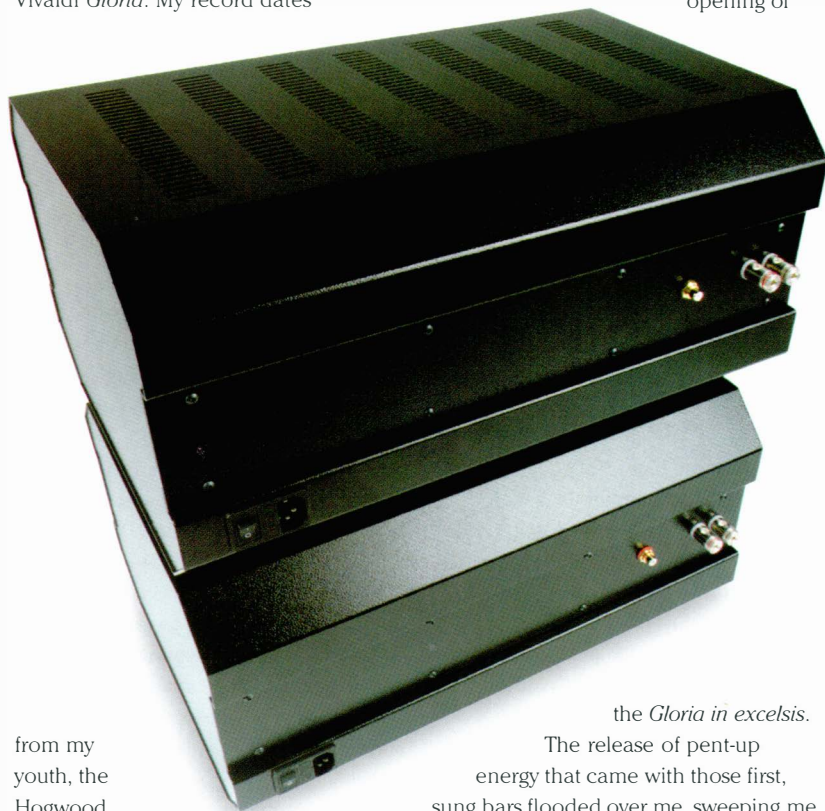
the very first notes it was clear that reality had shifted; I definitely wasn't in Kansas anymore. The solidity and presence of the orchestra (a small string orchestra remember, playing on original instruments) imbued the instrumental opening with an exuberant, almost exultant urgency, competing fanfares from the different parts creating the perfect air of expectancy for the

dramatic, full choral opening of

musical history – and I agree. But no other system I've played this disc on has ever captured me in the same way. The towering majesty of the *Gloria in excelsis* was followed by the wistful longing of the *Et in terra pax* and the almost playful inter-twinings of the *Laudamus te*. In each case the substance and presence of the performers filled the music with feeling and humanity; no mere exercise in a dead language, but a living, breathing experience.

Now, I can dissect what's going on here in hi-fi terms. I can talk about increased headroom, the greater width, depth and air within the soundstage and acoustic space, the effortless separation or the vivid tonal identity of voices and instruments. I can relate it all back to those twin foundations of noise floor and resolution. I can wax lyrical about the background that's deeper and blacker than the paint on the amplifiers' casework. But what I'm more interested in, because it's unusual and it's very, very special, is the effect that all these things have on the sense and self of the music. Which brings us back to power. 22 instrumentalists and a full cathedral choir might not be a major force when it comes to Mahler, but think about it in terms of sheer human potential and it adds up to a lot of noise. Right from the those first, urgent notes of the *Gloria* you are aware of the muscular effort that's generating that sound, and when the choir climbs the measured steps to the first crescendo you quite literally feel the power of the voices as a sinuous ripple through the words, a physical power that lifts and elevates – just as it's meant to.

Bear in mind now that the system in which these amps are operating is in real terms, certainly in terms of acoustic power, really quite modest. 55 Watts driving the Living Voice OBX-R2s will certainly deliver level, but bandwidth will still be limited and so too, ultimately, is the amount of air the system can move. Yet the music overcomes this barrier, or to be more precise, its ▶



from my youth, the Hogwood, Academy of Ancient Music, Choir of Christ Church Cathedral, Oxford recording from Decca's Florilegium series (L'Oiseau-Lyre DSLO 554). Played on the Linear A it has a beauty and delicacy, an almost ethereal quality, especially to the solo parts, which is quite beguiling, its lightness of touch perfect for a sunny Sunday morning. So it came as something of a shock when, with the Linear Bs recently installed I reached for a little relaxation to go with my coffee. From

the *Gloria in excelsis*.

The release of pent-up energy that came with those first, sung bars flooded over me, sweeping me into the rising crescendos of the ecstatic glory and majesty of Vivaldi's vision. For the first time since singing it I was reminded that this was music of passion; for the first time since buying the record I was transported back to the binding ecstasy and power of the performance. Here was power, here was music reproduced with an intensity of purpose and meaning that it transcended the constraints of the apparatus itself.

Happy accident, I hear you say, that here's a piece you know so well, that's embedded so deeply in your personal



► sense and essential identity does. Consider too that the front-end and speakers, supports, cabling and ancillaries have remained identical, yet the power amps alone have succeeded in stamping their authority on proceedings. Not since the Connoisseur 4.0 have I experienced a product that dominated its system environment with such contemptuous ease, prepared to perform with whatever handicaps the misguided user might impose. And whilst I'm reluctant to elevate the Linear B to anything like that exalted status (it lives in a far more complex and difficult world than phono

hi-fi performance, if we can understand and appreciate its importance.

Of course, there's more to the Linear B (and its effect) than a single recording of choral music. But once that effect is heard, you can't and won't miss it on everything you play. But there's also more to power than simple delivery. What the Linear B does so convincingly is control that delivery. Listen to the searing harp riffs on Little Walter's 'Juke' (*The Best Of Little Walter*)\* lines that speak intensity like Hendrix did with a guitar. Now hear the down shift and subtlety that comes into play on 'Mean Old World'.

interlude occupying the centre of attention as well as centre stage. But in many ways the acid test comes with John Cougar Mellencamp's 'Real life' from the album *The Lonesome Jubilee*. In this case the Mo-Fi 200g pressing cleans up some of the glare and hash that afflicts the standard version, but you can't do much about the compressed, muddled nature of the recording itself. Again the Linear Bs dig deep into the mix, holding tight to the groove and establishing order



and line-stages ever do, amplifiers being so much easier to push around than speakers) here is a product that achieves something of the same result. It shines a light that's almost as bright and nearly as penetrating, right into the heart of the performance; and it does it in the same way. Those twin foundations I mentioned earlier afford a third point of reference – micro-dynamic resolution, and with that tripod comes the natural inner balance that underpins what these amps achieve, that underpins the Connoisseur and also the Koetsu Jade Platinum. Here is the basis for a generational step-change in

Power can be plain acoustic, it can be emotional or it can be textural. Little Walter was a genuine genius and if you are in any doubt about that, let the Linear Bs unravel the range and expressive tones he conjures from what is supposed to be a one dimensional instrument. Clearly nobody told the self-taught harpist about its limitations.

The studio chatter that opens 'True Love Ways' (MCAs *Buddy Holly – Legend*) hasn't sounded this present or natural since I had the Connoisseurs at home. The languid flow of the track never simply drifts, the vocal and sax

and momentum from the chaos. Not only do they keep things moving, allowing the track to build into its high-energy chorus, but they handle the stutter rhythms that Mellencamp uses to shut things down before each verse, and they handle them beautifully. This is one track that should have you up and dancing. With these amps it's impossible not to.

Before we get carried away with the rather problematic and ambiguous notion of 'power', let's just repeat an important caveat. This amp doesn't have the foundation quaking qualities of the big Karan mono-blocks or the Levinson No.33Hs (let alone the 33s). It doesn't even have the rooted unflappability of a c-j Premier 350. This is not a powerhouse in the conventional sense. Yes, it overcomes the matching restrictions imposed by the Linear A, but that doesn't mean that you can simply hook it up to anything and it doesn't have the current to generate well-controlled amounts of serious air from a low-

In this case the superb Speakers Corner 180g re-issue of the original Chess LP-1428. RSF threw himself overboard, wearing a weight belt, when he reviewed this a few issues back. He was right! I don't care if you don't cotton to the blues. I don't care if you think mono should stay consigned to history. This is one record you should hear.

► efficiency, wide-bandwidth speaker system – especially one that could be regarded as an awkward load. Once again transformer matching is critical and to get the best from these amps you'll need to choose the matching speaker sensibly and make sure that the transformers match its impedance demands. As sensational as these amps can sound, it's easy to make them merely ordinary.

The reasons behind this come from the nature of the power in which they trade. It's not raw, electrical power, but power that comes from within the music itself. Tom's designs have always traded in resolution; getting the right bits in the right place. The Linear Bs get more of those bits to the right place, but also keep them moving in the right direction and at the right speed. It's just like a golf swing, a rugby scrum or a rowing eight; the real power comes from timing and rhythm, the perfect synchronisation of effort. That's what makes the Linear Bs so effective: It's what makes them so effortless and graceful: And it's what encourages you to think they're more capable than they really are when it comes to real world nasties. Push them too hard into an inappropriate speaker and you'll lose coherence and continuousness rapidly followed by the onset of strain (at ridiculous levels). But they're never nasty in themselves, they simply lose that sweetness and joie de vivre that makes them so special in the first place.

That's the caveat, but let's not forget the sublime grace and explosive power of a perfectly timed cover drive. Get it right and there's an enduring quality to the music produced by these amplifiers. As yet I've really only flirted with the limits of their performance envelope, with speakers in the offing that will provide a sterner test than those I have to hand, as well as the return of higher powered amplification to run head to head. I'm going to save those observations


### Feeding the beast...

I used the Linear B mono-blocs with a variety of associated equipment, but it quickly became apparent that (unlike the Linear A) they are very picky about what they play with. Speakers weren't the issue, with even the large and demanding Nola Pegasus delivering excellent results. It's the coherence of the incoming signal that matters. Our Hovland HP100 is in need of re-valving, a fact ruthlessly revealed by the Linear Bs, which fastened on the gentle bloom and touch of imprecision in the bass. They didn't pull the music apart, they just left you in no doubt as to the part the pre-amp was playing.

for later, as well as passing the amps along to CT for an alternative view within the context of the Connoisseur line-stage. But for the moment, it's enough to say that these amps are capable of generating real musical magic; of transporting the listener, Tardis-like, back to the original recording; of surrounding the performance with the aural and spatial cues of its original environment. But above all they take you back to the playing itself, the essence of the music. There are no distractions, no dissipation of the message. The detail adds to the event rather than diluting it and the music cuts through, holding your attention the way it does when it's live.

Does that make the Linear Bs (and the rest of the TEAD chain) the Holy Grail of hi-fi – indistinguishable from live sound? Sadly, not even close. What they do deliver though, is the sense and communicative immediacy that goes with the real event. They don't make any recording sound live; they don't make a bad recording sound great. What they do is sidestep the issue of recording quality, so that you simply accept that what you hear is what is there. It's not so much a case of overcoming or seeing through recording quality, but rather of

Likewise, use with the Herron line-stages, the VTL TL7.5 and directly linked to the Wadia left one with a clear picture of what exactly was upstream. Not surprisingly, the Vibe suited best, especially in concert with the Groove. Likewise, cable loom coherence, the integrity of the mains supply and general set up and house keeping all come into play. It's not that the Linear Bs won't work with anything other than Tom's line-stage, more that you'll get more of whatever the line-stage you use actually does. There's no masking here, which is both a good and in some cases a bad thing. Get it right and – just like with the music – you'll know...

rendering it irrelevant. It becomes all about the message rather than the medium, and the message comes from within the music and the players playing it. I've mentioned Gestalt recognition before and here it is again. It just sounds right... which might not mean much until you hear the effect – but then you'll know. 

#### TECHNICAL SPECIFICATIONS

Type:	Hybrid mono-block with valve output stage
Valve Complement:	8x EL84 per channel
Inputs:	Single-ended RCA/phono or balanced XLR
Input Impedance:	15kOhms
Input Sensitivity:	600mV
Outputs:	1pr 5-way binding posts per channel
Rated Output Power:	55 Watts/8 Ohms
Dimensions (WxHxD):	475x267x327mm
Weight:	20kg ea.
Finish:	Very black
Price:	£3990 ea.

#### Manufacturer:

Tom Evans Audio Design  
Tel. (44)(0)1443 833570  
Net. [www.audiodesign.co.uk](http://www.audiodesign.co.uk)



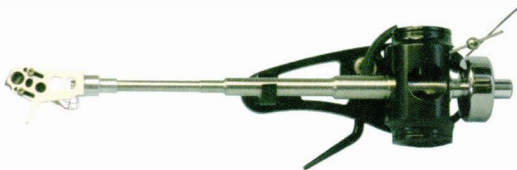
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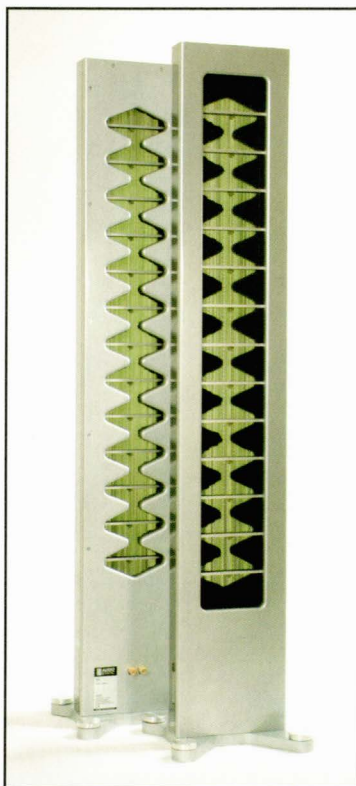
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# The Bryston B-100 SST DAC Integrated Amplifier

by Jason Kennedy

Bryston is a steady company; not for its employees the frippery of garibaldi biscuits or cream puffs, this is a fruitcake and almond slice munching organisation with its feet firmly on the ground (plane). As Bryston is involved with the professional world of recording studios and the like, it builds its amplifiers to be bomb proof and probably tea proof too. I've been using a BP25 preamp for a couple of years now, on and off, and the worst that I managed to do to it is work a screw loose on the power supply lead's plug. The metal brick remote has survived many a stage dive off the listening vestibule and if you were to wipe off the dust the pre-amp would look as good as it did when it arrived here, at least I think it would.

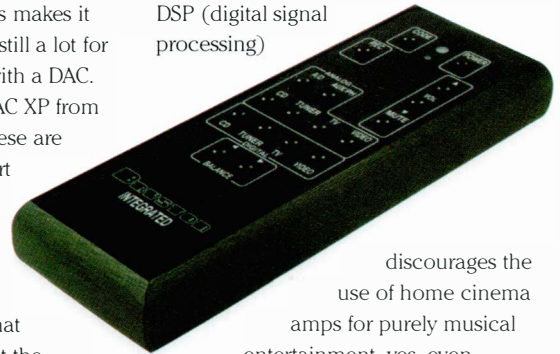
The new B-100 clearly comes out of a similar mould. The edges have been rounded off and the volume knob is more meaty and softer edged because this hefty integrated has what Bryston calls its C-series styling, but essentially this is a no nonsense battenburg-rejecting piece of amplification. It is also only the second integrated to come from this Canadian company. Some years ago it brought out the B-60 which looks a bit like the BP25 preamp but delivers 60watts from its slim carcass. This new integrated is a rather more substantial and costly creature with serious heat sinking on its flanks and onboard digital to analogue converters, with the requisite digital input socketry on the rear panel. It was launched in two versions, either an analogue or an analogue plus DAC amplifier, but demand for the non-converting model proved too low to warrant keeping it in production. So now there is just the one

B-100 and it costs £3,290 without a remote handset, which adds £450 (apparently and fortunately third party handsets can be programmed to run the amp) as would an MM phono stage if that were required. I guess with the likes of Mark Levinson, Krell and more recently Gamut offering integrations at even higher price points this makes it seem less excessive, but it's still a lot for a one box amp, even one with a DAC. But products such as the DAC XP from Cyrus would suggest that these are expensive to build in the sort of numbers demanded by the high-end, two-channel market place. Cyrus' pre/DAC costs over two grand on its own and that from a UK company without the burdens of shipping and import taxes.

The array of socketry on the B-100's rear end is almost enough to scare a home cinema enthusiast. There aren't that many actual line inputs (six) but the fact that there are four digital inputs via both of the popular connectors (electrical via S/PDIF and optical via Tos-link) and that the in and outputs are arranged either side of a central dividing line does mean you have to look twice before hooking up a pair of interconnects. I guess this approach is related to a dual mono architecture within but there must be more straightforward ways to do it without compromising results.

You can assign the digital inputs so that the connected component concurs with the front panel button; in other words if you connect your DAB tuner to digital input 2 the amp can be set so that it can be accessed from the tuner button

even though that input will function as a regular analogue line input as well. It has a pass-through feature for combining the B-100 with a multi-channel system, which effectively means using it as the power amplification for the front left and right channels. A useful feature that because the sound of DSP (digital signal processing)



discourages the use of home cinema amps for purely musical entertainment, yes, even expensive ones.

Other socketry includes pre-out and main-in via RCA phonos so you could use this solely as a pre-amp or a power amp if circumstances required it, and I guess this would also make bi-amping more straightforward. It has a pair of 12volt output triggers (one programmable, whatever that means) and an RS232 connector for external control and software upgrades. The front panel offers that increasingly rare facility – a headphone jack. As far as one can see there is no USB port for your iPod which some might consider an omission, albeit one that's common to all stereo amplifiers to my knowledge.

Under the lid you'll find an indication of just how serious this amp is in the three 'ultra low noise' mains transformers, one for each analogue channel and another for the digital section. You won't necessarily find

▶ two mains transformers even in power amps at this price. The op-amps are fully discrete, class A varieties rather than ICs which bodes well, as does the use of separate ground planes for analogue and digital sections.

As this is what Bryston calls an SST amp (I'm told this stands for "Super Stuart Taylor" but find that hard to believe!) it uses an "incredibly linear" Motorola transistor which is said not to require compensation for the usual problem of increasing distortion with rising frequency.



This device is also said to be extremely rugged and capable of surviving short circuits without distress, which could come in handy one day. It's also one of the reasons why Bryston feels confident enough to give a 20-year warranty on all but the digital electronics in the B-100. They are covered for five years which is itself pretty impressive.

The question this begs is would you want to listen to this amplifier for twenty years? It seems like a long time but it's not unusual to come across people who are still happily using kit they bought in the eighties (and sometimes the seventies for that matter) so clearly 'proper' hi-fi is far too well built. Not to mention so well cherished that it hardly ever ends up as recyclable waste that requires the maker to pay for its eventual disposal (see previous pieces

on the EEC's latest blunt instrument, the WEEE directive, for more).

But to get back to the initial question, I think the answer has to be positive. While it's hard for a reviewer to imagine listening to the same amp for more than a couple of months it's not difficult to envisage someone getting their musical gratification from this unit for a score years and more.

Why, well it doesn't have much character of its own so what you hear is more of the music, more of what the musicians and producers put onto the master tape and nearly all of what the mastering engineer put onto the final cut. It is highly responsive to variations

in the musical and sonic content of everything played through it. Cymbals have body and shine which is unusual for a solid state design, while double bass strings are bold and solid though not in an unnaturally muscular fashion as is sometimes the case with powerful amps. There's no shortage of girth either. The B-100 has little difficulty extracting decent bass from Living Voice OBX speakers. It would have been interesting to have tried a larger, more challenging speaker such as the B&W 802D that I have lined up for the next issue, but the planned crossover period was eliminated by both parties!

This strikes me as being a more open and transparent amplifier than

previous Bryston pre/power combos that have come my way. Maybe the rest of the system has got better, thus giving it a leg up the sonic ladder but I don't recall such low noise and all round clarity. Keith Jarrett's *Changes* LP sounding remarkably open and particularly fine. Even though it's a great recording not everything lets you know as much to this degree.

As it has so many digital inputs I gave a couple of them a try. With a Primare CD21 (£800) there was a clear improvement over the onboard DAC and associated output stage. Transparency increased as did depth of tone while the overall sound got stronger to the extent that the player's own circuitry sounded veiled. The rather more capable

Townshend TA565 CD proved a harder nut to improve upon however. In fact with this £3,000 player the Bryston was not able to match the remarkably organic and warm homogenous sound coming in via its line-input. The amp's onboard conversion adding a fine digital edge that undermined some of the warmth and naturalness of the TA. But to put things in context this player costs nearly as much as the amp and is the best I've heard bar none, so it would have been a shock if the result had been any different. That the B100 can even compete is impressive indeed.

I also spent many happy hours using the Bryston to convert the web radio stream emanating from my Apple G5 via Tos-link, stations such as Groove Salad and Secret Agent from the SomaFM site providing entirely listenable and occasionally engaging sounds at 128kbps. Even Podcasts, which I discovered over the summer, sound remarkably revealing considering their crude production and transmission quality. While the resolution of



▶ webstreams might be low, with a decent DAC the result is never harsh and as a result you can hear the music well enough to know whether it's worth investigating further.

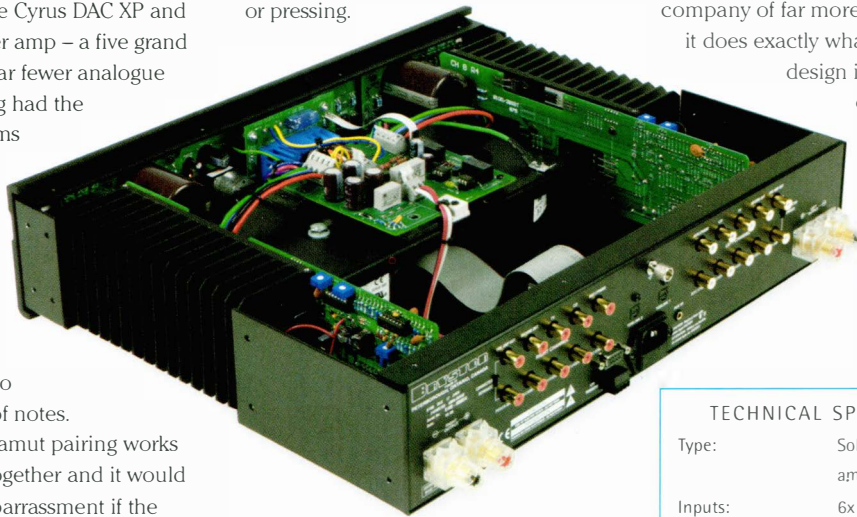
Another rather unfair comparison was made between the B-100 and a combination of the Cyrus DAC XP and Gamut D200 power amp – a five grand plus pairing with far fewer analogue inputs. This pairing had the upper hand in terms of openness and timing and made the Bryston sound a little up front and 'pro' style in the way it adds a slight emphasis to the leading edge of notes.

Again the Cyrus/Gamut pairing works surprisingly well together and it would have been an embarrassment if the integrated had undermined it.

On its own this is a highly gratifying and revealing amplifier, one that can reproduce the dynamic swings of a piece like 'Black Marigolds' by the Don Rendell/Ian Carr Quintet with ease, rendering the muted trumpet and plucking of the double bass with considerable realism. Pulling out a clear, strong and ultimately engaging sound from what is a slightly murky mix. It has a slightly graphic quality, with a hint of artificial delineation of the fundamentals but this does not stop it delivering considerable subtlety nor from producing realistic soundstaging.

Playing an old favourite in the form of Radiohead's *OK Computer* I was struck by the level of detail being delivered and the extent of the openness in this sometimes over-egged recording. The bass line on 'Paranoid Android' was rather clearer than usual while the lyrics on several tracks were a lot easier to follow. In fact vocals seemed to be generally easy to understand, from the absurd screeching of Geddy Lee on *Cygnus XI* (yes someone still listens

to this) to the spoken word on Underworld's *Second Toughest In The Infants*. Astral Weeks on the other hand, seemed a touch on the bright side but I don't play this as often as it warrants and that finding may well be a reflection of the recording or pressing.



I also hooked up a pair of the rather accomplished Revel M22 bookshelf speakers to this amp. The result was smooth, even and powerful, even grunty at times. Laurie Anderson's latest production (*Life On A String*) exciting the pairing to produce some genuinely meaty bass alongside solid, shapely imaging. There was no escaping the limitations of the CD-R nature of the software either, the system revealing a thick and slightly uncomfortable quality to the sound that is unlikely to be found on the original, which is something I'll have to get. Next to another fine integrated of the bodacious variety, ATC's SIA2-150, the Bryston is a little short on ultimate grip but pulls ahead in terms of finesse and subtlety; it's a more relaxed affair and probably more human at that.

This is clearly a fine and tremendously capable amplifier, both in terms of operational flexibility and sonic finesse. The price of the remote is off putting but it's a nice device from the hewn from solid school (which lights up really well in the dark) and there's

always the option of a Marantz/Philips programmable handset that would run the rest of the system as well. All in all it looks like Peterborough, Ontario's finest crafters of audio electronics have done another swell job with this latest integrated amplifier. Comfortable in the company of far more costly separates, it does exactly what an integrated design is supposed to, delivering superior performance without the fuss and the extra on the price-tag. ▶+

#### TECHNICAL SPECIFICATIONS

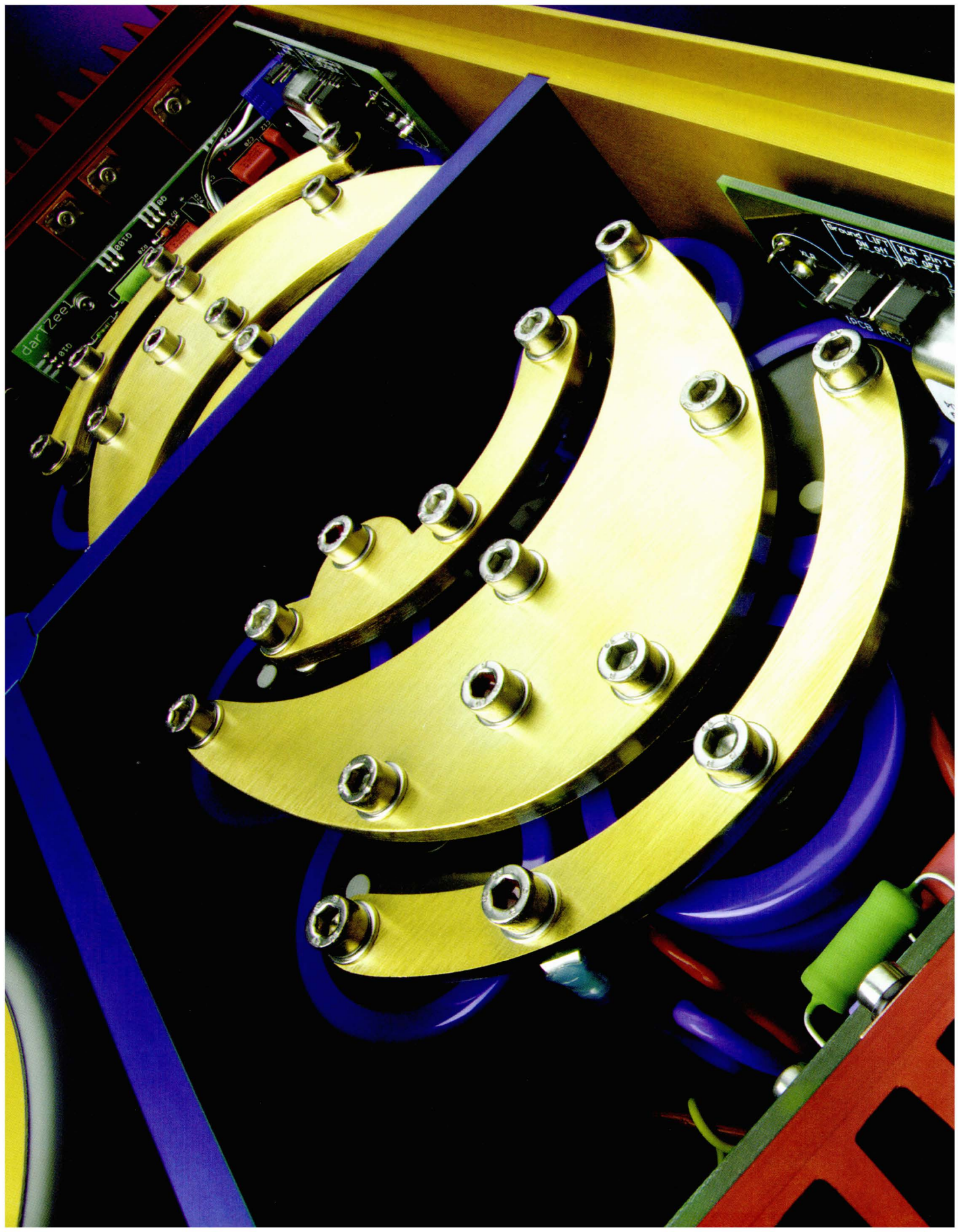
Type:	Solid-state integrated amp with internal DAC
Inputs:	6x line-level RCA/phono 2x Tos-link optical, 2x S/PDIF RCA/phono 1x power-in RCA/phono
Phono-stage:	MM (Optional extra at £450)
Outputs:	1x pre-out 2x tape-out Headphone jack
Rated Power Output:	100 watts per channel 8 ohms, 180 watts 4 ohms
Warranty:	20 years (digital circuits 5 years)
Dimensions (WxHxD):	430x121x406mm
Weight:	13.6 kg
Finish:	Silver or Black
Price:	£3,290 Optional Full Function Remote £450

#### Distributor:

PMC  
Tel. (44)(0)870 4441044

#### Manufacturer:

Bryston Ltd  
Net. www.bryston.ca





# The DarTZeel NHB-108 Power Amplifier

by Alan Sircom

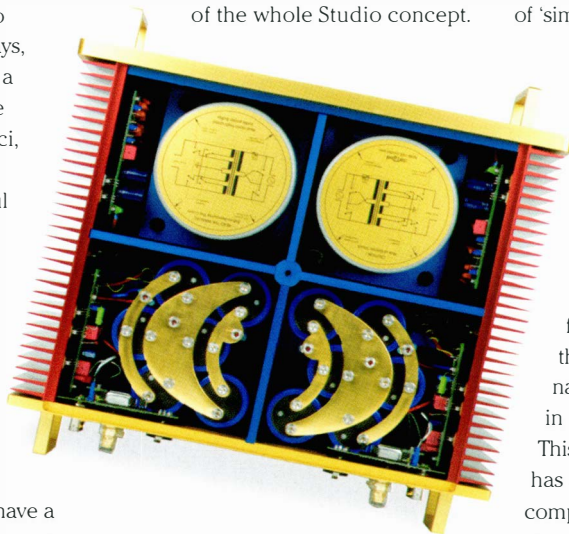
In our small UK high-end hi-fi pond, Absolute Sounds is the biggest fish around. Possessing all the best-known brands (a profile built across many years), having 'ins' with the best and widest selection of dealers and having the biggest presence in our little community, Absolute Sounds is the – official or unofficial – role model for aspiring high-end distributors throughout the community.

This success is a double-edged sword. The sharp side says, "hey, Absolute Sounds is a success, who cares?" But the other sharp side says, "where do I go from here?" This is a big potential problem for Absolute Sounds owner Ricardo Franassovici, because if the second issue isn't resolved, no matter how successful the Absolute Sounds portfolio is, torpor and boredom set in. Before too long, Ricardo does a Reggie Perrin, rides his Harley off into the sunset, or passes the business on to the next generation, like Yoda handing over to Luke Skywalker, only better English used with, yesss. Such shake-ups could potentially have a significant effect on the Absolute Sounds portfolio.

Ricardo isn't that dumb. He has not relinquished the Absolute Sounds empire, but has made the smart move of re-invigorating his interest in high-end audio. Enter Ricardo's Studio, a wholly new off-shoot of Absolute Sounds with a stripped-down set of new products, designed to work together in a systemic manner. And, keeping the Studio concept simple, there's just the one pre-amp and power amplifier. Depending on

your political allegiances, this is either Back To Basics, or it's Alastair Campbell-esque spin-doctoring. Or if you want to be spin-free it's a single-system approach – which is brave because it's never worked before.

The first product to roll out of Ricardo's Studio is the DarTZeel NHB-108 power amplifier. Ricardo's Little Helpers – the Gnomes of Switzerland – have delivered a solid-state, 100 Watt/channel stereo amplifier, which at £14,000, is the most costly part of the whole Studio concept.



The matching pre-amp – the NHB-18 – is scheduled to control the Studio system, too.

From a technical standing, the power amp is innovative; if not altogether ground-breaking in its individual components, the mix is truly original. The casework is cellular, and each section of the amp is distinctly separated from the others, even to the point of a 20mm thick false bottom to the case. There's no global feedback,

and this means an attendant rise in THD (a bit like a valve amplifier design). The design stresses eliminating temporally-derived distortion over the removal of intermodulation and total harmonic distortion (like a single-ended valve amplifier) but claims linearity up to the 30MHz level (not at all like a single-ended valve amplifier), which can only be heard by dogs with microwave radios.

DarTZeel claims the benefits of the NHB-108 are derived from its ethos of 'simplicity, purity and reliability'.

The simplicity comes from using only a handful of the best components (there are just 14 transistors in the circuit). Purity hails from having virtually no switches, fuses or relays in the signal path. And, as for reliability, the company claims a life expectancy of up to 40 years for the NHB-108. Strangely though, the normal funky range of brand name components are eschewed in favour of good, solid electronics. This, perhaps, is why the product has a 40 year lifespan; choosing the component to maximise its purpose, rather than selecting electronics on the basis of famous names.

For a power amp, there's surprising user flexibility; the NHB-108 can be adjusted to handle speaker loads as punishing as one ohm; there are also jumpers to control DC offset and to eliminate any potential hum problems in balanced XLR or single-ended phono inputs (we encountered no such hum problems). There is also a set of odd 50-ohm BNC inputs, marked Zeel, which will be used with the forthcoming ►

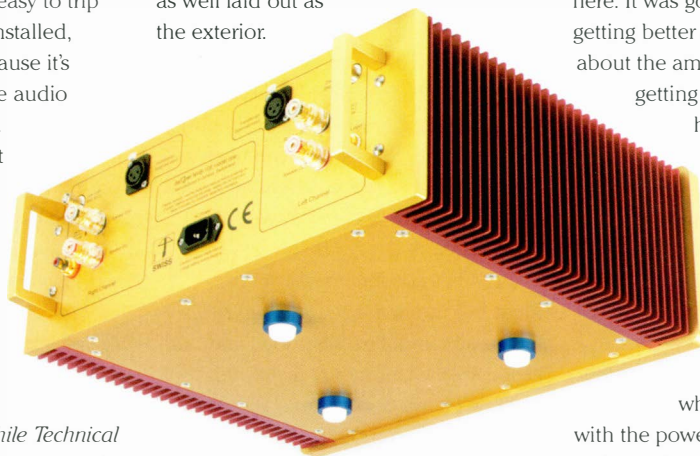
▶ pre-amp. The only thing to be aware of is that the amplifier must never, ever be used without a set of speakers attached to its heavyweight terminals. If you do, the monitoring circuit kicks in and new fuses are required. The crowbar circuit is relatively easy to trip when setting up, but once installed, it's entirely stable and – because it's absolutely divorced from the audio circuit – completely benign.

What is so special about DarTZeel's ethos is the integrity of the design. Nothing is left to chance. A quick whizz through the company's website – [www.dartzeel.com](http://www.dartzeel.com) – demonstrates this.

If in doubt, download the company's 28-page *Audiophile Technical Manual*; it's practically a recipe book of how to build a good amplifier, and why an amplifier sounds as it does. Or, take a look at the serial number, which isn't hidden away round the back, but vividly displayed on the front panel. This tells you country of origin, batch number, individual number within the batch and version, all of which is explained in the manual. This level of transparency is rare, and all the more attractive for that rarity.

Transparency extends to the casework, too. When you get the box home, the wooden carriage top-plate must be changed for the glass one supplied in the top of the packaging. Fortunately, DarTZeel thinks of everything and includes tools for the changeover, right down to little glass-lifting rubber suction cups (these have an added bonus – they are useful for cat burglary. Please note... the makers of Hi-Fi + do not condone resorting to theft to fund the purchase of the NHB-108; we prefer financing methods where 'APR' does not mean 'A Prison Record'). Normally, a glass top-

plate in an amplifier is rather pointless, as the insides of one amplifier look pretty much like those of another; drab, grey and black. Not here; DarTZeel have made the inside of the amplifier as colourful, as well constructed and as well laid out as the exterior.



There is a touch of bling to the overall design; gleaming yellow-gold casework, orange glow-plug status 'eyes' and matching power button 'nose' (cute), blazing (not literally) red heatsinks and electric blue and yellow internals. This is distinctive, but garish.



The 'eyes' are useful though; they are the window to the DarTZeel's soul, or at least its operational status. Remember, yellow eyes good, red eyes bad (this does not apply to alligators or dinouaurs). As to blinking eyes, flashing eyes or dimmed eyes... take note and address

the potential clipping, DC offset or no signal problem. Simple... and intuitive.

There's a simple formula with high-end hi-fi. The more exotic and more expensive the design, the longer the run-in period. There was no exception here. It was good to start with, but kept getting better and better. On line chatter about the amp suggests that it keeps getting better over hundreds and hundreds of hours of use.

In fact, there was a definite threshold where things got better after a couple of weeks in situ. The down side is that this run-in seems to be able to be overturned by lying fallow for a

while; a week-long holiday with the power off during the course of the review seemed to roll back the amplifier's run-in by a week. But that's OK; go on holiday and you have the joy of coming to the amplifier anew.

This is no normal power amplifier – it's something really special. It's got all the properties of a really, really good valve amplifier with all the speed, dark noise floor, dynamic range and detail of a transistor amplifier. And that more than makes up for any running in or crowbar concerns. One of the most attractive aspects of single-ended valve amplifiers is that simplicity of sound.

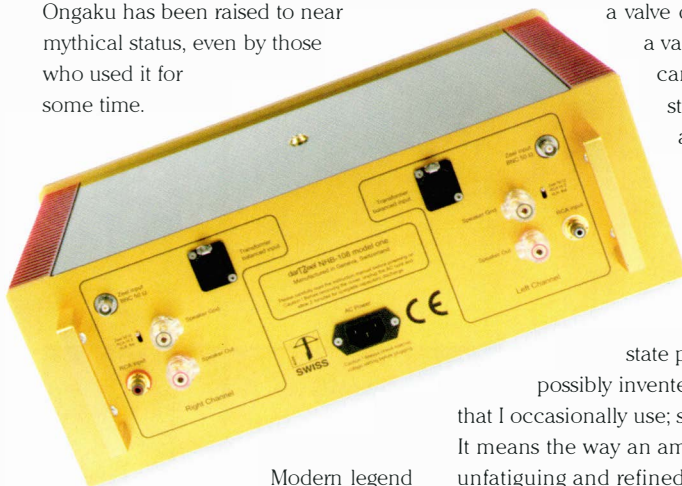
The lack of components in the chain seem to manifest as an absence of clutter in the sound and the overall result is a sense of naturalness and 'being there' with the musicians that even the best transistor amps struggle to achieve. Except here. The DarTZeel has that 'thereness'

perfectly defined; no mush, no complexity, just a sense of people playing music in your living room.

Perhaps part of this sensation is due to the soundstaging, which is ▶



▶ little short of magnificent. Don't expect grandiose scale or holographic imagery; you get something far less arch, here. It merely seems like musicians are in the room with you, living and breathing in your space, not in an artificial space of their own. This is uncanny, because it makes many hitherto very natural-sounding amplifiers appear fake and unnatural. In fact, from memory, one of the few amplifiers that betters the DarTZeel's naturalistic soundstaging was the original Audio Note Ongaku, and even here not by a substantial margin. This is high praise indeed; that original Ongaku has been raised to near mythical status, even by those who used it for some time.



Modern legend has it that this had imagery so profoundly good that it could heal the sick. That the DarTZeel even approaches something so enmeshed in legend means it's no normal amplifier.

Then, there's the speed of the amplifier. It's quicksilver fast, addressing dynamic changes like a three-watt SET amplifier and making your speaker cones react as if they were electrostatic headphones. No matter what the scale of the music, the DarTZeel's reaction time is almost psychic; you find yourself listening to other amplifiers and saying the words "rise time" as a pejorative. Yet, for all this speed of attack, this is not a brash sounding amplifier; it's merely fast enough to react to changes in music, and it's only after listening to the DarTZeel that you discover how few amplifiers really do that. With the speed

of the amplifier, you get a sense of organic sustain, decay and release to notes, whether the note is a feedback-filled Hendrix solo, or merely picking out one violin out of many.

So, if this is an amplifier that makes valve sounds, why bother? Why not just make a valve amp? Because, no valve amp can deliver this much power and stay fast. It has all the cojones of a high-end transistor amplifier, all the speaker grip, the bottom end thwack and the good sense of rhythm that is impossible to combine in a valve amp without

sacrificing the benefits of a valve design. So, it's a valve amp that can play rock to stadium levels, or a transistor amp that can play jazz to night-club clarity. All in one (almost) fuss-free solid-

state package. I possibly invented an ugly word, that I occasionally use; sitinfrontability. It means the way an amplifier is so unfatiguing and refined that it can extend listening sessions. The DarTZeel practically defines the term. Yet, it also doesn't fall into the trap of making sounds too mellow or sanguine; it does not over-refine its music. Faced with refined-sounding amplifiers, it's wise to turn to the Dark Side for a while, if only to see if the amplifier is refined, or planished smooth. So, out come the Studio One reggae records, out comes Television and out comes Schoenberg. And it's here that the DarTZeel showed its true mettle; it delivered these recordings as harsh and abrasive as they should sound, only the sheer naturalness and absolute detailing made you listen to more of the recording than usual. The compilation *Respect to Studio One* is a particular 'fave' of mine, here; this frankly icky recording is so poor that in general the lower the low-fi system, the

better it sounds. Top notch high-end leaves it compressed and toppy. This still applied with the DarTZeel, but then you still wanted to listen to the whole album.

This is one of those designs where tales will be told of its majesty long after it's gone. Like the Ongaku, the Mark Levinson ML-2 or the original Electrocompaniet, the DarTZeel's performance is so sublime that it's hard to rate it with any sense of level-headedness. This is the transistor amp that made valve amps weep, and that's the song future hi-fi buffs will be singing round fires, while quaffing mead. Or something. ➤

#### TECHNICAL SPECIFICATIONS

Type:	Solid-state stereo power amplifier
Inputs:	1pr RCA/phone 1pr balanced XLR 1pr 50 Ohm BNC
Input impedances:	
RCA:	> 100 kOhms, 5 Hz to 200 kHz.
BNC:	50 ±1 Ohms, 1 Hz to 1 MHz.
XLR:	> 100 kOhms bet. Pin 1 and 2 (hot leg and ground)
Gain:	26 dB @ 8 Ohms.
Nominal output power:	100 watts RMS @ 8 (Hi) and 2 (Lo) Ohms, 160 watts RMS @ 4 (Hi) and 1 (Lo) Ohms.
Output impedance:	< 0.33 Ohms, from 20 Hz to 20 kHz
Dimensions (WxHxD):	440x170x335mm
Net weight:	30kg
Price:	£14000

#### UK Distributor:

Ricardo's Studio  
Tel. (44)(0)20 8971 3909  
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# The Bosendorfer VC1 Loudspeaker

by Paul Messenger

Bosendorfer's VC-1 is one of the most unusual speakers to come my way in more than twenty years. It doesn't look all that strange – rather it's both pretty and discreet, with a notably slim front panel minimising the bulk – but appearances are deceptive. It doesn't just bend a few of the rules, it breaks most of them, and comes from a company that was founded a century before the hi-fi industry had even been thought of.

I don't know how many readers will know the name Bosendorfer. I guess it will depend very much on one's taste in music: the Coldplay generation may be none the wiser, while fans of Alfred Brendel will be much more impressed. This Austrian manufacturer, steeped in the Viennese traditions of the spiritual home of classical music, makes some of the world's finest pianos, and has done since 1828. Its list of celebrity endorsements is headed by Franz Liszt and Johannes Brahms, and continues down through a who's who of famous pianists still alive today.

Does that give it any right to make loudspeakers? By no means. But it does mean that the company is marinated in musical culture, and arguably has a rather better idea of how music is actually created than those in the hi-fi industry.

That said, conventional wisdom has it that the loudspeaker and the musical instrument should be worlds apart, and indeed that the requirements for a speaker are virtually the opposite of those for a musical instrument. Creating

and controlling resonances lies at the very heart of how musical instruments are played, and the theory goes that the loudspeaker should therefore be as resonance-free as possible in order to avoid adding resonant colorations to the reproduction process.

At the same time, it's also true that a relatively small loudspeaker diaphragm, pumping away like mad, will never replicate the physical way that a large instrument like a piano or acoustic bass creates low bass notes and rich harmonics, through a large area vibrating invisibly. Perhaps this is one reason why hi-fi systems never really approach reality; why big speakers sound more 'real' than small ones; why horns have a special charm. And maybe also why this Bosendorfer, with its resonant enclosure and extra sounding board, also captures something of the same magic.

I'm getting a bit ahead of myself here, but that's because this is such a disorienting loudspeaker. The basic ingredients look prosaic enough, and hardly seem sufficient justification for the VC-1's base asking price of £2,500 per pair. What we have here is a compact floorstanding two-way, with a relatively small (140mm frame) main driver and a conventional enough 25mm soft fabric dome tweeter. That's no more than one

might find in a little 7-litre miniature stand-mount, selling for a fraction of the price. But the key to this speaker lies in the complexity of its cabinetwork and the contribution it makes, which includes an 'acoustic sound board' energised by a reflex port, as well as the unusual disposition of the drive units.

The VC-1 is the smallest of three stereo pairs in Bosendorfer's range, all of which are very similar, both conceptually and in the ingredients involved: the rather larger top-of-the-line VC-7 (\$4,745), for example, is also a two-way, but has four bass/mid drivers, two tweeters and two of the acoustic sound board resonators. The quoted figures are just the starting prices for each model, where the finish is plain black or white. Bosendorfer might be new to loudspeakers – that side of its operation is only five years old – but the piano making heritage has given it access to all manner of very classy and attractive real wood veneers. Both the speakers and the pianos are made in a relatively modern plant some 50km from Vienna, and as a result the speakers are also available in some very fancy veneer options, usually at substantial extra cost.

The man behind these designs is an Austrian called Hans Deutsch, who ran his own speaker company for many years, and has more than thirty years ▶



► experience in loudspeaker design. He calls his radical approach the Acoustic Active Principle, and deliberately rejects the usual approach of attempting to control enclosure resonances and rely purely on the drive units to generate the sound. In a backgrounder he sets out his stall: “Without resonances, there cannot be lifelike sound”, an assertion which most speaker designers would regard as pure heresy. He sums up the Acoustic Active Principle as treating: “the loudspeaker cabinet as a vibrating, resonant body, allowing the creation of a three-dimensional, transparent, true-to-life sound”.

Whether you agree or disagree with that contentiously controversial statement, there’s no escaping the fact that creating a speaker that follows such principles is going to be a very difficult task. Regular motor-driven drive units are substantially predictable things, far more so than large resonant panels of wood. However, if one accepts that Hans’ AAP approach may have some validity, no company is better qualified to develop and manufacture such devices than a skilled and experienced piano maker, where the whole *modus operandum* is to augment the string vibrations with carefully controlled and evenly distributed panel resonances.

Exactly how this accomplished in the VC-1 is difficult to say precisely, though there are a number of clues. The bass/mid drive units are mounted on the (out)sides of the relatively large enclosure sides, and strategically placed just off-centre of both the height and the depth, in order to excite the maximum number and variety of bending modes. There’s a little narrow slit or slot, about 14cm long, near the plinth and just in from the back edge, and what appears to be a matching one on the inside face too. These presumably act as well-damped reflex ports, and the inside one helps excite the special 10x91cm ‘acoustic sound board’ (ASB) that is attached by six strategically placed fasteners to the (in)side of the enclosure.

A proper separate plinth ensures good overall stability in all directions: pretty gilded spikes are supplied as standard, though these were supplemented by Black Diamond cones for most of the listening. Two side grilles are supplied to cover the side-mounted main driver and preserve symmetry with the ASB on the other side, though the front panel is uncovered and the surface-mounted tweeter is left exposed. The small bass/mid driver has a 140mm cast frame, a relatively stiff foam surround and a 100mm diameter paper cone. Signal is applied via single pair of terminals low down on the rear.

Intrigued by the AAP and ASB features, I experimented by feeding one of the speakers with sinewaves, and it was readily apparent that different parts of both the enclosure panels and the ASB were resonating at numerous frequencies throughout the bass and lower mid-band. The ASB, for example, was clearly generating significant vibration at 130-140Hz, and again at 180-200Hz.

This review was actually delayed by an issue, as Bosendorfer’s Rupert Loeschner wanted to come over with Hans Deutsch in order to help optimise placement and set-up. This proved a fascinating exercise, as Hans started moving the speakers around while listening to the music we were playing. It was a procedure that smacked more of mumbo jumbo than any scientific method, yet when Hans had found the locations for each speaker that he found most satisfactory, I have to admit they

were sounding remarkably good, especially after he’d finished twisting the orientation of the speakers.

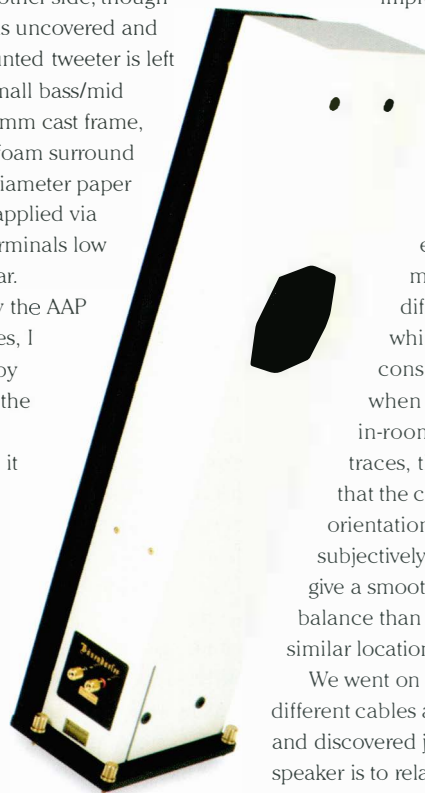
The subjective effect was somehow to manage to integrate speakers and room modes, to such an extent that the two were working in harmony together, minimising boxiness and creating the

impression that the sound-field was being generated across the whole of the end of the room.

It was a curious, almost uncanny, yet wholly pleasurable effect, and one that makes this speaker very different from the norm, while also conferring considerable charm. And when I subsequently ran my in-room far-field response traces, they only confirmed that the chosen locations and orientations that Hans had subjectively selected did indeed give a smoother and more even balance than alternatives in broadly similar locations.

We went on to experiment with different cables and floor coupling, and discovered just how sensitive this speaker is to relatively small changes, and how easy it was to tweak and tune them to taste. I suspect that two key factors are responsible. First, this is an exceptionally simple design, with a minimalist crossover network and no damping, so time coherence is essentially very good; then there’s the ‘magnification factor’ that the enclosure resonances provide, which also seems to emphasise differences.

Aside from the above, both the sound quality and the measured performance are somewhat mixed. Starting with the measurements, there’s no really deep sub-50Hz bass here, which is no real surprise in view of the small bass/mid driver, and also the fact that the reflex porting is tuned to a





▶ relatively high 70Hz. The far-field in-room tonal balance is also a little unusual: it's around 4dB stronger through the bass and lower mid-band (between 50Hz and 250Hz) than over the rest of the band, though both sections are reasonably even and well balanced either side of 500Hz. Sensitivity is well below average – realistically, around 85dB – but the amplifier load is very benign, staying comfortably above 6 ohms throughout, and above 16 ohms through much of the mid and treble.

This combination of modest sensitivity and power handling inevitably mean limited loudness capability, but it still seems quite able to deliver rock music at decent enough levels, albeit without too much headroom left in reserve. Serious headbangers and techno-fans should maybe check out one of the larger Bosendorfers, such as the VC-7, whose multiple main drivers gave a high 91dB sensitivity under the same conditions.

However, if high levels and deep bass aren't major priorities, this slim and compact VC-1 is a hugely enjoyable loudspeaker, especially in the way it handles acoustic instruments and sorts out complex arrangements. The review actually coincided with the BBC's annual Prom season, giving plenty of opportunity to enjoy this to best advantage, with a little help from Magnum Dynalab's MD102 tuner. Dramatic dynamics make the concert piano a particularly difficult instrument to reproduce convincingly, and while the Bosendorfer name indicates this might have been a priority, it still came as quite a shock that such a compact speaker could make such a large instrument sound so realistic. Likewise, acoustic basses were very persuasive: the plucked responses from the orchestral basses at the beginning of the fourth movement of

Ravi Shankar's *Sitar Concerto No1* sounded most impressive and realistic.

Despite the lack of genuinely deep bass, the VC-1 never really sounded small or lacking in scale, simply because it delivers such a strikingly realistic dynamic performance through the bass and lower mid-band. In a very real sense

these dynamic capabilities are reminiscent of horn loudspeakers, even though the sound



is very different in other respects (much more 'in-the-room' imaging, much less coloration and lower sensitivity).

Just occasionally the sound can be a little too rich and warm – Lamb Chop's 'Is a Woman' springs to mind, and male speech can sometimes sound a trifle 'chesty'. But these are very much the exceptions, and for the most part this speaker simply sounds delightfully natural and open, with an inherent musicality that's powerfully seductive, yet also very different from the norm. Its music making is wonderfully agile, yet also effortlessly consistent right across the band, making no attempt to force the pace with undue grip or drive.

All speakers involve various compromises that are reflected in the

overall performance, and it's often possible to predict the likely outcome from any given collection of ingredients. That's certainly not the case here. Low bass, sensitivity and power handling might all be modest, and the tonal balance a trifle unusual, but few can match the convincing way the VC-1 delivers dynamics, with very superior speed and coherence. And once the correct locations and orientations are found, it's quite remarkable how well speakers and room integrate together, spreading a convincing image across the whole area, with a splendid freedom from boxiness. Indeed, the knowledge and expertise that is required to optimise placement could well be this design's Achilles' heel. Ideally sited, Bosendorfer's speakers might be very different from the norm, but their unique approach can deliver a sound that is triumphantly natural and easy to live with, while also delivering outstanding musical communication. ➤+

#### TECHNICAL SPECIFICATIONS

Type:	2-way active resonator (see text)
Drive Units:	1x 25mm fabric dome tweeter 1x 140mm paper cone mid-bass
Frequency response:	35 - 25,000 Hz (±3 dB)
Crossover frequencies:	130 Hz*; 2.0 kHz
Power rating:	60 watts
Music rating:	120 watts
Impedance:	8 ohms
Efficiency:	90dB/2 Watts, but see text
Dimensions (WxHxD):	160 x 927 x 245mm
Weight:	13 kg ea.
Price:	From £2500/pr.

\* based on the performance of the HornResonator

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# The Audio Physic Luna II Sub-woofer

by Richard S. Foster

I first became aware of Audio Physic's outstanding Minos sub-woofer back in the fall of 2002. On a visit to California I heard a system driving a pair of Audio Physic Virgos whose lower octaves were sounding simply amazing. I spent some time scouting the room before realizing that the great bass I was hearing was coming from the Minos sub. The coherence and integration were simply astonishing, setting off deep internal pangs of loss and regret for the bass my JMLabs speakers couldn't deliver. Unfortunately, in my reduced circumstances (fiscal as well as dimensional) the Minos was simply out of the question, on grounds of size and price.

When it comes to low-frequencies my audio history has always been blessed (or cursed, depending on your point of view). I've yet to hear a single pair of speaker cabinets that can handle full-range signals the way I would like: Either the demands of the low-frequencies compromise the mid and treble or vice versa. Just take a look at some of the speaker systems that I've owned and enjoyed over the years. Both the Infinity RS1/RS1b system and the Acarian Phalanx/Poseidon system, while tackling the issue of bass information in different ways, delivered the goods by employing (large) multiple cabinets. When I moved into smaller surroundings, I sold my Phalanx/Poseidon combo (and the four amplifiers needed to drive the beast) and fell in love with my JMLab Micros. The sweetest affairs can arise from necessity and now I've moved up to the Micro Bes, but while they're outstandingly good for their size, it's

obviously impossible for them to quench my thirst for that which is missing: anything under 50Hz.

However, I wouldn't consider myself a 'bass freak'. I really believe, truly (and deeply – pun intended) that if you get the lower octaves right then the rest of your system will blossom. Too much deep bass and you close your system down – a smaller, more congested sound stage, loss of definition and space, muddy sound and slowed rhythms and dynamics. Too little bass and the system lacks the scale and authority to recreate a plausibly 'live' sound from your front-ends. It's all a case of balance – something of a theme when it comes to sub-woofers.

The Luna II is, as you'll by now have guessed, a smaller and more affordable incarnation of the Minos. I've been enjoying mine for a while, and it's no exaggeration to say that it's dramatically changed my listening experiences.

The cabinet is approximately 25" tall but only 10" wide and 18" deep, resulting in a much smaller footprint than many subs. It contains two drivers, an ultra long throw 10" unit with an extremely stiff aluminum cone, coupled with a 12" passive radiator, positioned back to back across the narrow dimension of the cabinet. The rear panel consists of speaker terminals, RCA inputs and outputs, an on/off switch and four knobs to control crossover point, phase and volume. An additional Room Gain control provides active shaping of the low-frequencies, but Audio Physic are reticent when it comes to precise details. "Simply rotate it for the most even response", came the err, response.

There's also a standby/on light. I leave the Luna II on all the time. When there is no signal being processed, the amplifier goes into standby mode and as long as I'm not travelling, I see no reason to shut it down. With the exception of the phase control, each of the three knobs has 75 discrete positions. This simply means you can 'feel' the knob as you move from 45Hz to 46Hz and so on. That stepped control is a major benefit when setting up the subwoofer, making swift, repeatable adjustments simplicity itself.

This active subwoofer is extremely flexible. Like most such designs, you can either connect it with speaker cables to your amps or operate it at line-level directly from your pre-amplifier. I chose the latter as I am already shotgunning speaker cable into the Micro Be's and I didn't want to hook up more speaker cables to the Manleys. I also wanted to avoid any impedance issues and since I had the option to go line level, this seemed the natural way for me to go. Enquiries with other sub users confirmed the view, although there are also those who disagree, feeling that the "sound" of the amp overlaid on the sub aids integration. Me? I want speed and transparency thanks, to match those W-cone bass-mids in the Micros. Placement was to the left rear of the Micros, about a foot from the rear and side-wall, where the Luna II has remained, virtually undisturbed, for nearly a year. Whilst the sub has the capabilities and controls to function with your home theatre system, I've not used those functions as this is a straight audio only application.

Now, I know that for the first few months I was over compensating

▶ with too much bass for my system. A couple of friends would tell me and I would of course dismiss them, but deep down, I knew they were right. Until one day, the party was over and it was time to do a proper set-up and banish the dark and heavy-handed tendencies. I wanted the bass, but I didn't want to know where it was coming from. I wanted that foundation when the music called for it, but when there was no deep bass in the source material, I didn't want to know the sub was there.

The first stage in setting up any sub is choosing your recordings. I relied on several recordings I know intimately: the first movement of Argo's wonderful Poulenc *Organ Concerto* ZRG 878; *Psalms of Consolation and Hope* Argo ZRG 892; *The Birds* on the Speakers Corner/Mercury re-issue SR90153 and Cisco's re-issue of the Joan Baez album, *Farewell Angelina* VSD 79200. These would be more than enough to tell me everything I needed to know. Having said that, there is one record I know exceptionally well and it throws a huge soundstage while offering an extremely low noise floor. It has stunning sound and the opening movement with strings and bassoon will tell you instantly if you've hit the proverbial bull's-eye. It's the first minute of the *Adagio, Allegro non troppo* of Tchaikovsky's *Pathétique* (*Symphony No. 6*) with Pierre Monteux and the Boston Symphony Orchestra on U.S. RCA LSC 1901. No re-issue has ever come close to this original. It's the most magical opening of this great symphony I've ever heard and it happens to be an absolute killer to determine how good your soundstage really is. I've used this for years as it tells you, almost instantly, about the qualities you want as well as all the ones you don't. This I saved for last after I thought everything was set up properly.

The very first thing I did was to shut the Luna II off and listen to the system.

You need a starting point and obviously the best way to start is with the sub out of the system. Familiarizing myself with the chosen cuts from the selected LPs, I introduced the sub into the system. My previous experience wasn't totally wasted as I'd already settled the issues of Room Gain and Phase. With these left at the preferred settings, I started to play with the cross-over frequency and level.



With a setting of 50Hz and 15 on the volume control the dark-side instantly reared its head. Thus began the endless juggling of cross-over point against volume level. I eventually settled on 47Hz and an extra seven notches of level, but up or down one step on either control destroyed the balance and integration. It sounds simple but I'm talking several hours of intense listening here.

Then of course it was time to check the Room Gain setting (again in balance with the other controls, but mainly Level). Then of course you have to repeat the whole process for the

opposite corner of the room – the original position proving better. I also tried the Luna II between the speakers, but hampered by the lack of room reinforcement from corner siting, it was most unconvincing. Eventually I was forced to accept that the original was indeed the best.

The Luna II comes with spikes which I used for my initial listening. I've since replaced them with a Stillpoints component stand, itself resting on four Stillpoints and Risers. As a result of the increased distance from the floor, I've had to increase the level by another two notches.

Now, all this detail isn't intended to act as a "roadmap for peace" – or even sonic satisfaction; your own system would differ significantly. What I want to show is just how much care and just how precise the set up needs to be if you are going to hear the Luna at its considerable best. Listening with the Luna II has given me tremendous pleasure.

I mean a real thrill.

On recordings I've known for years, especially their lower octaves, it has brought new meaning to the word nuance.

Great classical recordings familiar from my 'Three-Mile Island' rig (the nick-name for the Acarian system) have been reborn. Another example: the Cowboy Junkies, *The Trinity Sessions* (Canadian Latent – Latex 5) and the first cut, 'Mining for Gold'. The engineer placed the DAT recorder next to an air-conditioning duct. No problem if your system doesn't go below 40Hz; however, when I played this on 'Three-Mile Island' the walls would literally chatter with overloaded bass information. That system had a crossover that let me cut the Poseidons out of the chain, leaving the Phalanx's to work from about 45Hz upward, which killed the problem dead. Well, with the Luna II it's back, but thankfully the ▶

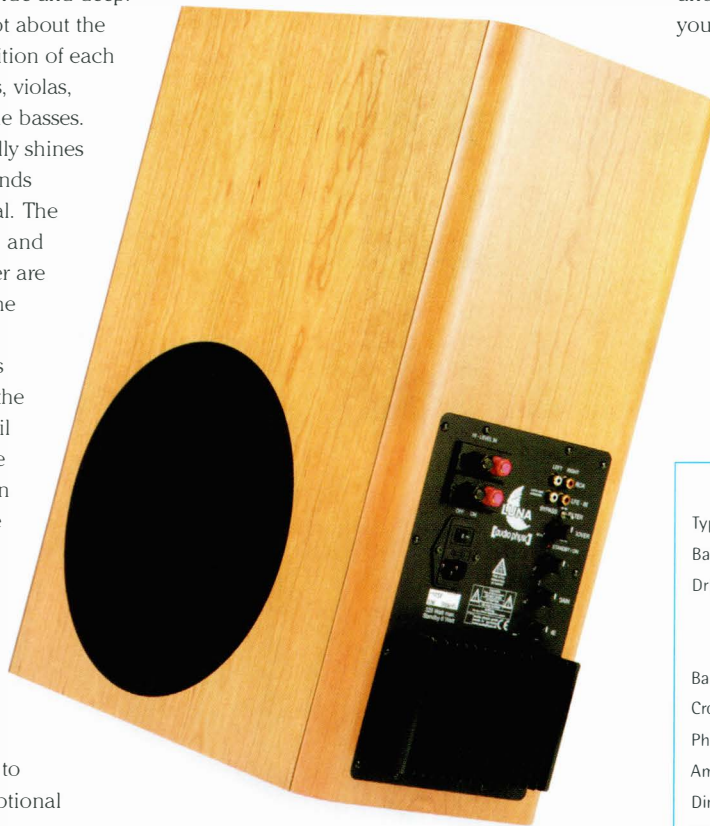


▶ smaller room driven by one (rather than four) 10" driver is a lot more manageable. Bottom line: pre-Luna, this noise wasn't being reproduced. Now it is. And that goes for low-frequency notes too...

And the icing on the cake? The Tchaikovsky sounds glorious, with a capital "G"! The opening is truly magnificent. The stage is wall to wall. The strings are wide and deep. There is no doubt about the clarity and definition of each section of violins, violas, cellos and double basses. The bassoon really shines through and sounds incredibly natural. The scale, substance and authority I'm after are all there, while the speed of the sub enables seamless integration with the exceptional detail and insight of the Micro Bes. And in another example of perfect balance, the extra low-frequency weight brings even better presence, clarity and focus to the already exceptional beryllium tweeter.


What I find most wonderful about the Luna II is that whilst it's physically separate, the sound it delivers, when required, seems to come from the sound space created by the Micros. The illusion of deep bass coming from those tiny cabinets was exactly what I was hoping this product would deliver and deliver it does. That bass is very clean, deep, defined and offers superb tonal variety and shading, matching the subtlety and finesse of the mini-monitor mid-band. The Luna is clearly very fast for a sub-woofer and this is the key to the

superb integration. Having heard so many subs I thought it was going to be impossible to match one to my sonic, space and system demands. Audio Physic have proved me wrong, by engineering a unit that combines phenomenal speed and great control with just enough extension to get the job done. Combine that with the LF



contour provided by the Room Gain setting and you end up with a significantly more versatile and controllable result. I also love the idea that this unit uses a 'side throw' arrangement. The last thing I wanted was to look at a sub-woofer grill facing me, with the psychological feeling of knowing exactly where the sound was coming from at all times. The Luna is as visually unobtrusive as it is musically so.

A key part of any review is identifying potential shortcomings in

a product. While writing this piece I was really thinking about negatives or any issues I should note, but while no product is perfect, this one is perfect for me. It has been doing its job and I don't even notice it is there. What more could you ask of any component? If you despair of ever finding a sub with the performance and speed to integrate properly with your mini-monitors (or electrostatics) try the Luna II – it certainly does it for me. 

#### TECHNICAL SPECIFICATIONS

Type:	Active sub-woofer
Bass Loading:	ABR
Driver Complement:	1x 10" aluminium cone driver 1x 12" ABR
Bandwidth:	18Hz - 120Hz(-3dB)
Crossover (variable):	45 Hz - 120Hz
Phase (variable):	0° - 180°
Amplifier Power:	180 Watts
Dimensions (WxHxD):	260 x 630 x 460mm
Weight:	34 kg
Finishes:	Light maple, dark maple, black ash, cherry and rosenut (special order only - £100 extra)
Price:	£1799

#### UK Distributor:

Aanvil Audio  
Tel. (44)(0)1359 240687  
E-mail. [bill@aanvilaudio.com](mailto:bill@aanvilaudio.com)

#### Manufacturer:

Audio Physic GmbH  
Net: [www.audiophysic.de](http://www.audiophysic.de)



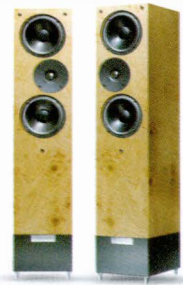
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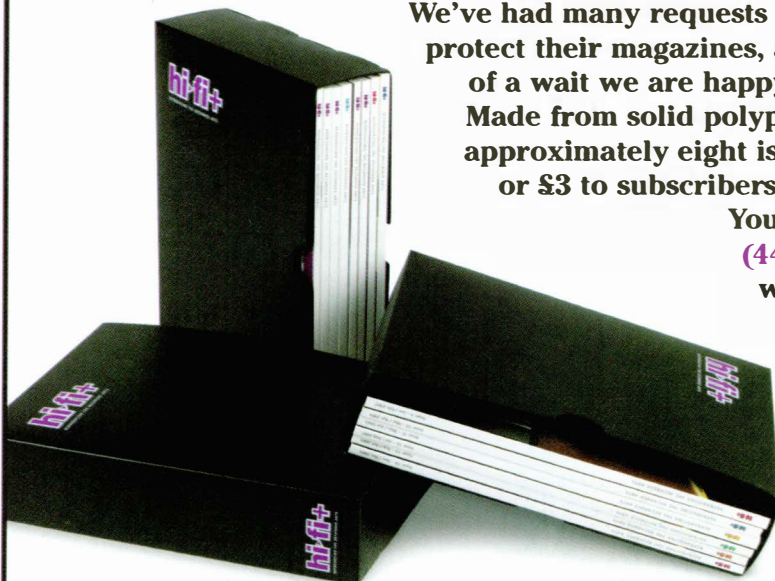


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# Splendid Isolation...

## Equipment support platforms from Vertex AQ, Stillpoints and Symposium, with a little help from finite elemente and RDC

by Roy Gregory

Isolation and equipment supports are hardly news in the world of hi-fi. The Sound Organisation can probably be credited (blamed?) for starting the whole kerfuffle with the introduction of the Sound Organisation Table, a UK built, light but rigid support designed for the LP12 turntable. As well as raising the spectre of isolation in the collective consciousness of the audio community it also set the precedent for brutally minimalist styling and set your turntable at a height that made ritual prostration a prerequisite for operation.

Since then, we've travelled a long and far from direct route to the present day, where increasingly sophisticated racks offer a variety of solutions to the problem of isolating your expensive hi-fi equipment from pernicious intrusion. Like everything else, this development has gone in phases, but two recent trends are worthy of particular attention. Max Townshend's original Seismic Sink appeared well before its time, but if it was slow to make a real impact on the market, the delay allowed it to grow into a complete range of stands and supports all based around the inherent simplicity of the air isolation principle. You only have to hear the effect of a complete suite of Townshend devices on a system to appreciate just how intrusive external vibration can be. It also brings home

just how limited traditional, lightweight structures are in dealing with it. Hence the more sophisticated offerings from the likes of finite elemente and Audiophile Base. The latest Townshend rack, along with wood-based but otherwise similar (in principle at least) Voodoo design, will feature in the upcoming examination of racks. However, before we get there, there's another issue to examine.

Air isolation (in most cases supporting the equipment on an air 'spring' provided by one or more, small, bicycle inner tubes) deals predominantly with structure borne energy. It's a serious concern. Just consider how much energy your speakers are throwing into the room – and how much of that will find its way back to the system via the walls and floor. And that's before you consider the presence of spurious low-frequency energy from road traffic etc. However, what it doesn't address is the issue of energy generated from within the system itself.

The first serious attempt to address this problem that I'm aware of came from Acappella in Germany, in the shape of a special support platform for the Clearaudio Master Reference turntable. With three, standalone motors and a rigid structure, the issue of vibration from within the unit itself was clearly a serious one. Acappella's solution

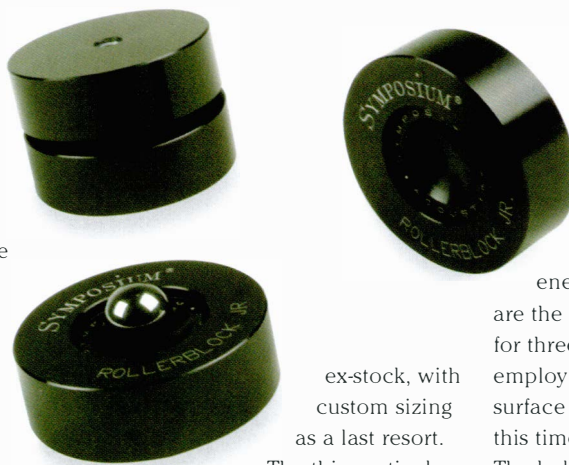
was to provide a precision milled interface of aluminium plate, bonded to a succession of different materials designed to lead energy away from the surface and ultimately 'sink' it as heat – and very effective it was too. But, the Master Reference base was simply a development of other platforms they already offered for electronics which used the same structure and, crucially, a set of aluminium spacers to couple it directly to the equipment's chassis. Whilst the three large motors and rigid structure of the Clearaudio Turntable made it an obvious candidate for such treatment, you might well raise an eyebrow at applying it to electronics. Yet the impact of mechanical energy on electrical components is well recognised – hence all those speakers with external crossovers. What we tend to overlook is how much vibrational energy is generated within equipment by transformers, the passing of electrical energy through components, the transmission of mechanical energy along cables and in CD players, the transport mechanism itself. Indeed, digital electronics seem particularly critical in this regard.

Vertex AQ's first Kinabalu platform took the principle a stage further by coupling the chassis of the equipment through a single, steel tripod to ►

▶ a granite sink, once again making that mass an extension of the unit itself; a degree of external isolation was provided by soft feet that spaced the granite from the supporting structure. That brings us up to date and it's time to introduce the newest generation of such devices. Whilst these vary significantly in choice of structure and materials, they all put evacuating internally generated energy at the top of their mission statement. Their sonic impact is not subtle.

### The Symposium Platforms

Hailing from the US, the Symposium platforms are conceptual equivalents to



ex-stock, with custom sizing as a last resort.

The thin vertical dimension is important in maintaining the space between shelves within racks, and means that you should be able to accommodate the Svelte Shelf within an existing

rack even if it's used in addition to an existing shelf, with or without additional supports

(not something that could be said of the Ultra Platform, but we'll get to that).

The Symposium shelves are intended for use with couplers that connect them directly to the supported unit's chassis. In their most basic form these consist of milled aluminium blocks, although Symposium also offer a range of ball-bearing based devices.

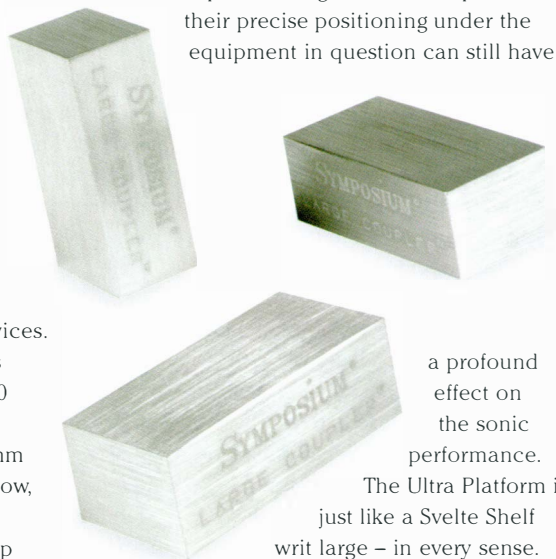
The simplest of these is the Rollerblock Jr (\$180 for three), two discs of aluminium around 15mm thick, each with a shallow, hemispherical section machined out of the top surface. These are top and tailed around a tungsten carbide ball to

provide a single point contact path which simultaneously allows lateral movement of the supported unit in order to avoid the impact of airborne low-frequency energy. More sophisticated still

are the Series 2+ Rollerblocks (\$330 for three), rectangular structures that employ a similarly dished upper surface to that described above, but this time polished to a mirror finish.

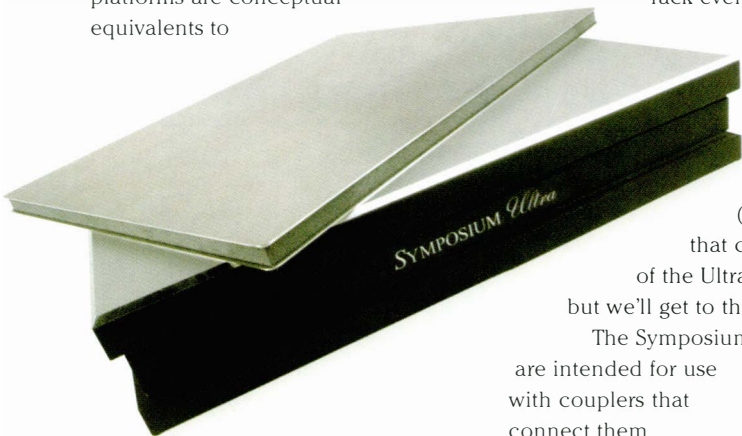
The ball that sits in the dish is intended to contact the supported unit directly, but for situations where the under-surface is uneven or inappropriate, Symposium supply a set of interface plates machined from thin stainless steel and also polished to a mirror finish. The underside of the block is machined out in a matrix pattern, the resulting voids being filled with a foam compound that helps control resonance within the block itself.

The shelves should always be used with one of the above coupling systems to bypass the original rubber feet fitted to most equipment. Where hard feet are used, it's still worth experimenting with the couplers as their precise positioning under the equipment in question can still have



a profound effect on the sonic performance.

The Ultra Platform is just like a Svelte Shelf writ large – in every sense. The (much thicker) stainless steel skins are bonded to what



the original Acappella bases, although very different in structure. Supplied for review are the Svelte Shelf (\$260) and the much thicker, heavier and more expensive Ultra Platform (\$465). Starting with the Svelte Shelf, top and bottom plates are made of stainless steel, the top one being noticeably thicker. These are bonded to a rigid, lightweight foam core with "interlayers" of an unspecified glue, creating a five element, constrained layer sandwich 15mm thick. The shelves supplied are 458 x 351mm, which makes them a drop-in replacement for a Target type one shelf, although other sizes including Target type 2 are available



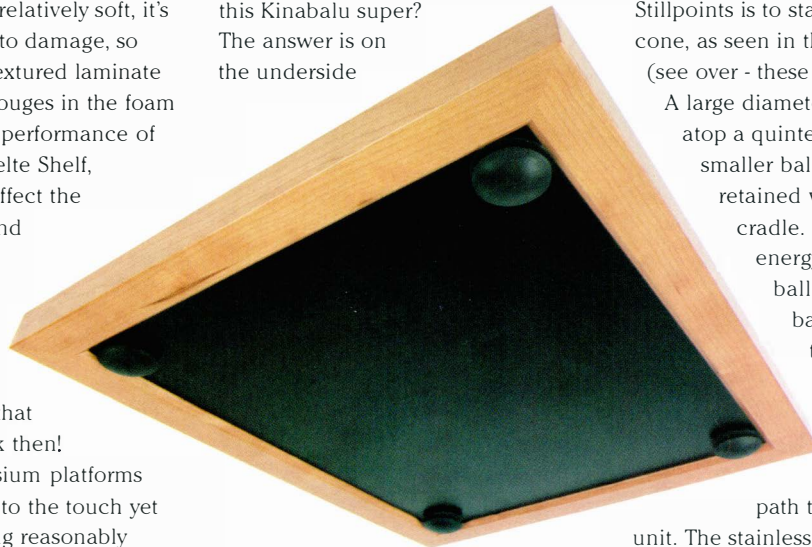
▶ appear to be substantial MDF slabs which are then bonded to a layered foam core a full 37mm thick. This is so deep that, being relatively soft, it's actually vulnerable to damage, so it's protected by a textured laminate skin. (Fortunately, gouges in the foam shouldn't affect the performance of either this or the Svelte Shelf, although they will affect the appearance.) The end result is a nine-layer sandwich (including adhesives) a massive 90mm thick. No dropping that into your Target rack then!

Both the symposium platforms are incredibly dead to the touch yet easy to handle, being reasonably heavy but nowhere near the extreme represented by the Vertex slab. The manufacturer does recommend maximum loadings, but with a limit of 14kg on a standard Svelte Shelf when supported in each corner, they're not too restrictive; if in doubt simply check. They also strongly recommend their application under speakers, but that's another story for another day.

### The Vertex AQ Super Kinabalu

The Super Kinabalu (£600) is an outgrowth and addition to the original design. It uses the same arrangement of complex steel tripod (a picture is worth a thousand words) and rubber tipped aluminium cones to elevate the equipment off of its feet while providing a single exit path for internal energy. The Tripod itself has evolved slightly from the original design, first getting taller, and then changing to a sonically superior alloy. The one that comes with the Super Kinabalu is identical

to the standard item, as are the four rubber pads that space the slab from its support. So, what makes this Kinabalu super? The answer is on the underside



of the granite slab, where a labyrinth layer has been added to further aid its dissipation of unwanted energy. The added depth and the junction of the two layers have necessitated the introduction of a wooden surround which also makes the whole look rather less industrial. Vertex AQ are also working on a rack which will



consist of a series of frames into which Super Kinabalu slabs can be dropped (carefully, one hopes!). Delivery is as yet unannounced but should be imminent by the time you read this.

### The Stillpoints modular support system

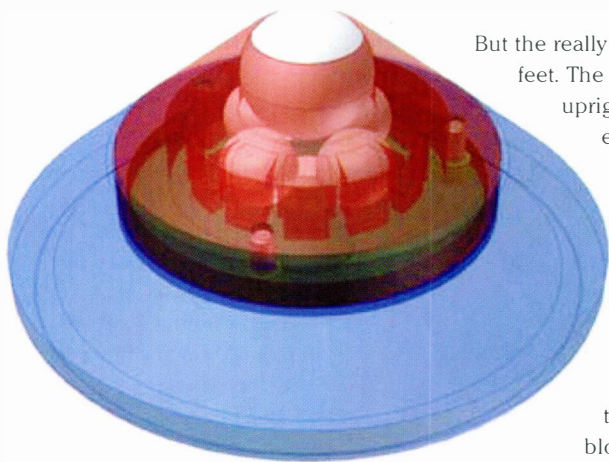
The easiest way to understand the Stillpoints is to start with their original cone, as seen in the cutaway diagram (see over - these cost £225 for three).

A large diameter ceramic ball rests atop a quintet of similar but smaller balls which are retained within a flexible cradle. Vertical vibrational energy entering the top ball causes the lower balls to spread flexing the cradle to dissipate that energy while still maintaining a rigid contact

path to the supported unit. The stainless steel base plate works in reverse, taking energy from the supporting shelf and feeding it into the flexible element where, once again, it's absorbed. It's an elegant solution that has spawned a family of associated components. Risers (£75 for three) are conical aluminium extensions to the Stillpoint cone whose threaded central post engage the hole in the base of the cone, enabling it to be adjusted for height and levelling. There are also

Inverse Risers (£75 for three) that act as cups if the cone is pointing down.

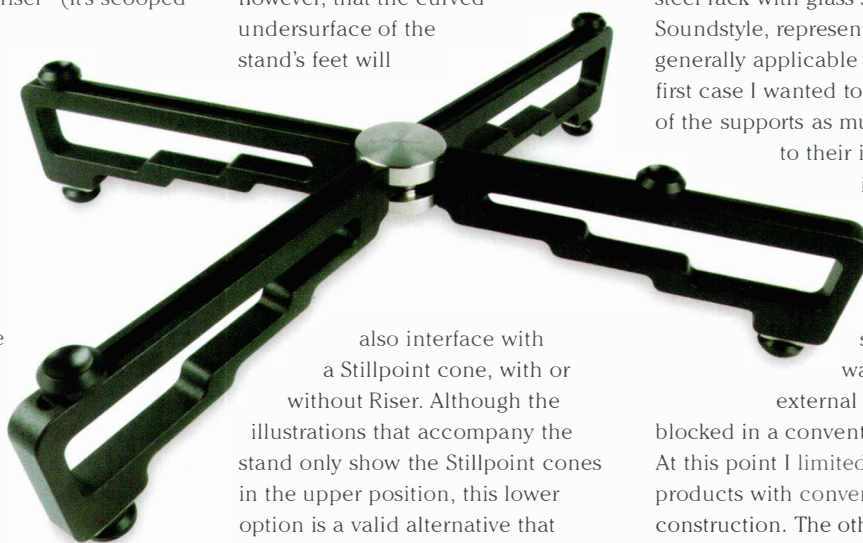
In this instance the cone can be threaded onto a stud (in the underside of a speaker cabinet, for instance) or used in conjunction with a Riser. I had no separate Inverse Risers to hand, but it occurs to me that one of their essential functions is to anchor equipment in place. The ball that forms the tip of the cone rolls extremely freely, as does whatever you place on top of it! All Stillpoints components are available in sets ▶



But the really clever part is in the feet. The apparently solid upright at the end of each leg is actually hollow. Inside it, a flexible ring retains five tiny ceramic balls which are forced apart by a stainless steel cone machined into the top of the foot block that closes the cavity. This is held in place

by a pair of allen bolts, securely but not too tightly. A threaded stud then supports the delrin foot, another mini inverse-riser.

It's a beautiful example of precision engineering but you'll need a 7/64 allen key if you want to get inside. The whole assembly is around 100mm high in standard form, while each leg turns on a 250mm radius. This versatile stand can be used under electronics or speakers to equally good effect, although once again, it's the former we'll be concentrating on. Note however, that the curved undersurface of the stand's feet will



also interface with a Stillpoint cone, with or without Riser. Although the illustrations that accompany the stand only show the Stillpoint cones in the upper position, this lower option is a valid alternative that

avoids the single biggest practical criticism that I have of this set-up. I started by using the stand in its three-legged configuration, with and without Stillpoint cones above. Later I tried four legs and cones below to see what difference, if any, resulted.

### The Listening

I used the various platforms and couplers in the context of two different support environments: atop a finite elemente Pagode HD03 Master Reference rack with its own, sophisticated protection against external sources of vibrational energy,

and in conjunction with a standard welded steel rack with glass shelves from Soundstyle, representative of a more generally applicable situation. In the first case I wanted to limit the effect of the supports as much as possible to their impact on the internal energy within the systems. In the second I wanted to see whether it was eclipsed by the external energy that isn't blocked in a conventional situation. At this point I limited the listening to products with conventional chassis construction. The other obvious

▶ of three or four and each cone has a weight limit of 45kg.

But what we have here is the Component Stand, perhaps the most advanced application of the technique short of the ESS system rack. The stand consists of milled aluminium legs (three or four to choice, £395 or £490 respectively) that are clamped into a central, stainless steel hub which allows them to be spread at any desired angle and then locked in place. Slots in the upper edges of the legs carry sliding inserts with threaded studs that run through them and lock them into the desired position. Each leg is supplied with a delrin disc that screws onto the stud to support equipment, but this "mini inverse-riser" (it's scooped out on its upper surface) can be replaced with a Stillpoint cone. The combination of adjustable leg positions and sliding supports should mean that just about any equipment can be securely coupled to the stand, irrespective of vents or screw-heads in its base plate.



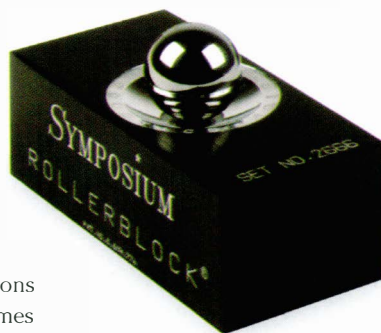
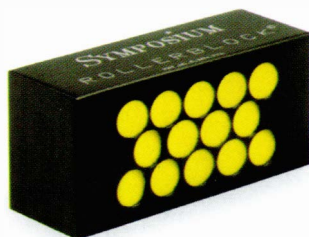
► application, turntables (and especially those with standalone motors) are addressed as a separate issue simply because whereas the Symposium shelves might well work as supplied, the Stillpoints stand and Vertex Super Kinabalu won't, opening a whole can of worms as regards what is interfaced and how. Of course, with each separate design the number and shape of the worms changes, just to keep things interesting.

I used the various supports under two CD players (The Wadia 861SE with its heavy, bolted construction, and the far more conventional Sugden CD21) and a range of amplification (pre-amps from Tom Evans, Hovland and Herron, the Hovland RADIA solid-state and a KR Audio Antares KA320 valve power amps). In all cases care was taken to ensure that the support was the only variable introduced at any one time – not as simple as it at first sounds.

It quickly became apparent that the precise positioning of the couplers was critical to the performance of the various supports. Moving one coupler by a few centimetres would in some cases be the difference between a very positive and a slightly negative result. So, in swapping supports or changing from one type of coupler to another, it was critical to accurately recreate the precise geometry of the interface. Further, although the optimum position for the various Symposium couplers was always the same, and matched the position for the Stillpoints stand, the Kinabalu's optimum position was generally completely different, often almost a mirror image. Add to that the fact that both the Stillpoints cones and the Series 2+ Rollerblocks allow the unit to roll relative to the support plane and precise placement becomes more than just a case of putting the unit down in the right

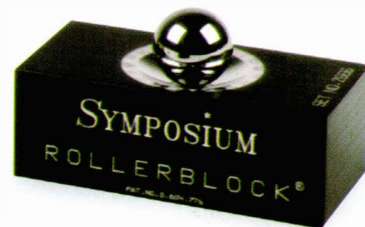
place. Lighter equipment like the Groove and Vibe both required considerable attention to cable dressing to ensure that they actually stayed exactly where you put them, and even moderately heavy units required some attention in this regard. The RADIA had to have its tightly curled mains lead completely rerouted before it would play ball with the Stillpoints stand.

One thing that becomes very clear very quickly is that if you are interested in this approach to energy management within your system (and you should be) then there are a couple of



practical considerations when it comes to assessing these products in your own system. First, and most obvious is that two pairs of hands make life an awful lot easier. I spent a lot of time struggling on my own; don't do it! Around about the occasion I nearly dropped my Wadia for the third time I realised I needed help with this one. I was right, and those extra hands made all the difference, especially when it came to getting the various bits in exactly the right place to start with – and then duplicating that position through the various

exchanges. Secondly, all of these supports can have a significant effect on the low frequency energy spectrum of your system, in some cases necessitating significant adjustments to the position of your speakers in the room. I listened mainly through the Nola Pegasus, a complex, four box, full-range system which demands extremely precise placement to optimise bass performance. In truth, with lesser speakers it's just as important, you just don't hear it as clearly. If you don't take the trouble to attend to this then the very real benefits that you'll hear in terms of focus, clarity and detail retrieval will be offset by disjointed, lean or overblown bass.



In the worst-case scenario, using the Stillpoints stand beneath the Sugden CD21, I had to move the speakers back a full two inches to restore the correct balance and weight distribution.

The end result was a dramatic advance over the unsupported player, but without moving the speakers the significant benefits would have been totally undermined by the impossibly lean overall balance. This isn't simply a case of chucking a platform and a few bits underneath one or two components and seeing what happens. The changes are musically more fundamental than that and demand the appropriate care and application if you are going to really realise the benefits. ►

► CD Players and solid-state electronics

The first thing to make clear is that the changes wrought by the various platforms are all of a type, differing only by detail and degree rather than in the nature of their effect. Use any of these devices and once you get the various bits in the right place (including your speakers) and you should hear improvements in the clarity and stability of the sonic picture, the detail and dynamic range, the pitch definition and separation of instruments, particularly in the bass (which is why speaker positioning becomes so much more critical – as discussed in my column in this issue). Which is not to say that the various platforms sound the same.

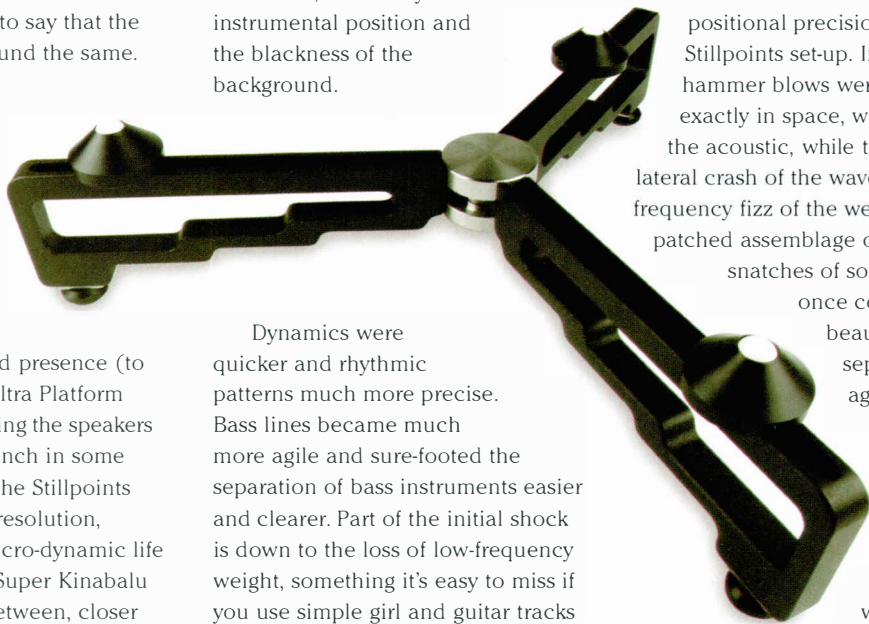
Within the general area of clarity and resolution, each has its own particular flavour. The Symposium products tend to err in favour of momentum, flow and presence (to the extent that the Ultra Platform actually had me pulling the speakers forwards by half an inch in some instances) whereas the Stillpoints are all about focus, resolution, transparency and micro-dynamic life and definition. The Super Kinabalu sits somewhere in between, closer to the Symposiums but its precise position dictated as much by the product supported as anything else.

The biggest spread of results was obtained with the Sugden CD player, perhaps reflecting its relatively flimsy construction compared to the likes of the Wadia or Hovland products.

In these more expensive units you expect the designer to pay more attention to the overall rigidity of the chassis, the isolation of the internal circuitry etc. With tighter design budgets such niceties are often

overlooked out of cost imposed necessity.

Let's start with the Stillpoints stand in its basic form. With the legs and mini-inverse risers carefully arranged, one beneath the transformer, one beneath the transport and the other behind and slightly inboard of the output terminals, the effect was somewhat awkward in appearance (there's no escaping the spidery, slightly stilted look of the Stillpoints stand). However, this arrangement definitely delivered the sonic goods so I stuck with it. But sonically there was no ignoring the drastic impact on the system's transparency and detail, the clarity of instrumental position and the blackness of the background.



Dynamics were quicker and rhythmic patterns much more precise. Bass lines became much more agile and sure-footed the separation of bass instruments easier and clearer. Part of the initial shock is down to the loss of low-frequency weight, something it's easy to miss if you use simple girl and guitar tracks for your listening, although the effect is there in a loss of flow and line in melodies, phrasing in vocals. You might well marvel at the extra focus and clarity and think you're hearing edges that weren't there before. Adjust your speaker positioning and you'll realise that you are indeed hearing those edges but that the ease and beauty in the melodic line is actually still intact. Likewise, the tonal coldness that can be associated with ceramics will disappear once the speakers have been repositioned.

Adding the Stillpoints cones to the Component Stand made a significant difference, delivering further benefits in terms of separation and detail but also weight, substance and presence too, requiring a forward shift of the speakers by an inch. The added attack and bite was achieved without any hardness or glare, while the added energy at low frequencies produced a more even and relaxed quality, removing a hint of insistence that crept in with the stand alone. Playing the opening sequence of Jackie Leven's 'Defending Ancient Springs' with its cavernous soundstage and shipyard sounds really brought out the focused substance and positional precision of the Stillpoints set-up. Individual hammer blows were located exactly in space, way back in the acoustic, while the complex lateral crash of the waves, the high-frequency fizz of the welder and the patched assemblage of voices and snatches of song were at

once coherent yet beautifully separated. The aggressive fuzz of the opening guitar riff had real impact and presence, while the catchy, almost hypnotic pattern of the bass line was wonderfully mobile and fluid, each note anchored in pitch and time yet with its leading edge, texture and decay giving it a flare of life, the line an inner momentum.

With two types of platform and a choice of three different couplers, the Symposiums were always going to present a challenge. Of course, as soon as I realised that the positioning of the couplers was the same as ►



► for the Stillpoints that made things a lot easier.

Starting with the Svelte Shelf placed directly onto the shelf of the Pagode rack and using the solid aluminium coupling blocks, it was obvious that whilst the benefits in clarity and separation were clear, they weren't even close to those delivered by the (much more expensive) Stillpoints set-up. However, the overall coherence and integration, the sense of musical flow, was excellent, with no thinning of the sound through the mid. Bass was if anything a little fuller, necessitating a short shift forward of the speakers if it wasn't to get out of control. Music took on an easier, more relaxed quality which made for inviting and engaging listening.

Substituting the Rollerblock Jrs for the aluminium couplers created a cleaner and more immediate sound, which with improved momentum and pace created a nice sense of intimacy. There was more energy and presence, but none of the forced quickening that comes with curtailed notes and stripped harmonics. Instead there was a natural sense of ebb and flow to phrasing, while music really breathed. Moving up again to the Rollerblock Series 2+ couplers introduced another layer of detail and textural resolution, really bringing voices to life and better separation between instruments. The increase in dynamic discrimination and leading edge definition delivered further improvements in terms of rhythmic shape and subtlety.

The final step was to repeat the process with the Ultra Platform, a switch that Demonstrated similar shades of difference between the various couplers but made them far more obvious. It also generated significantly greater scale, separation and overall weight to the music as a whole. Indeed, the Ultra Platform demanded a full inch of forward movement from the speakers – a very

significant degree of adjustment with such a wide-bandwidth design. The end result was wonderfully relaxed and naturally expressive, voices in particular revelling in the rich tonality and presence of the presentation. I'm not sure I can really recommend the aluminium couplers with the Ultra Platform; the subtlety and resolution offered by the Series 2+ Rollerblocks being its natural foil. Even the Jrs represent false economy in this instance.

The Super Kinabalu represents a significant step up from the performance of the standard version, larger than the £200 difference in price would suggest. It delivers a level of detail, resolution and textural insight that leaves the otherwise impressive original sounding rather clumsy and mechanical. With the Sugden CD player, I achieved the best results with the tripod placed below the transformer, the rubber-tipped cones in a similar layout to the other couplers, but an inch or two inboard. Yes, you do hear the difference. The sonic impact of the super Kinabalu is immediately obvious. Whilst you don't get the inky black transparency of the Stillpoints stand and cones combination, there's a silence behind the music and a sense of individual colour to voices and instruments that's instantly recognisable. Again, leading edges aren't as obvious as with the Stillpoints but there's a sense of emphatic purpose to proceedings which gives the music quite a different character and presence to the relaxed intimacy and natural presentation of the top Symposium set-up. Bass is deeper, with much better shape to notes, but of all the combinations required the least adjustment from the speakers – half an inch back was quite sufficient. In many ways, not least the security and stability of the equipment sat on top of it, this is the easiest and most

practical of these options. Overall height is manageable, with only the Svelte Shelf offering slimmer dimensions (and a slimmer performance). Kit stays where you put it and the appearance is less perched than the Stillpoints stand.

Switching source to the Wadia confirmed the basic findings but also revealed a few interesting facts. The most obvious conclusion was that the Sugden, even optimally supported, still fell well short of the Wadia's performance. However, the various platforms still delivered significant benefits in the context of the more expensive machine. Given the cost differential they are actually appear more cost effective in this context, yet the improvements wrought in the musical validity and entertainment value of the Sugden are hard to argue with at the price. Nevertheless, the results with the Wadia were far more predictable as well as revealing even wider performance gaps between the various coupling options. So much so that only the best combinations would really be seriously considered, the others constituting a bad case of penny pinching spoiling the ship...

I actually started by trying the Wadia directly sat on its own spiked feet atop the Symposium Ultra Platform. The results were far from great, with woolly, overblown bass and muted dynamics. Even the aluminium couplers represented a significant improvement, underlining the vital nature of the coupling itself. Needless to say, the various Rollerblocks were each significantly better still, the gap between the Jrs and the Series 2+ models widening dramatically. Likewise, the cones became a mandatory fit for the Stillpoints stand – although I'd have valued the security offered by a set of Inverse Risers. And for the first time the Super Kinabalu exhibited its inversion of the coupler ►

► footprint, it preferring its tripod beneath the left hand side of the player, the other platforms preferring two contact points on that side. It was to become a familiar theme with other electronics.

Whilst the general character of each platform's contribution remained consistent across both CD players, the results with the 861SE were, as noted, more predictable and consistent, probably reflecting its more massive and rigid structure. However, the benefits were, if anything, even greater. With more mass and more energy (as well as more performance) to play with, the platforms really came into their own. The Stillpoints stand in particular, lifted the sound away from the speakers in a way that I've only previously achieved with vinyl. Compared to both the Kinabalu and the Symposium Ultra/2+ combination, the player standing straight on the rack sounded flat and grey, lacking in life and presence. The Stillpoint set-up added extra dynamic expression and discrimination to the mix, along with the expected boost in transparency and separation.

Turning now to solid-state electronics, the results were again surprisingly similar. I'd expected more from the CD players because of their internal moving parts. Apparently, the extra cables connected to amplifiers, and the energy they transmit, makes up for the lack, so that the energy sinks are very nearly as effective in this instance too, even under the Vibe with its external power supply. However, there was one major difference between CD players and amplification and it lay in the effect of the various couplers. Whereas under the digital electronics, improving the coupling increased detail and separation, definition and the shape of notes, under the amps it was the timing that benefited. Rhythmic coherence and subtlety, integration and integrity all took

giant steps forward, making music more dramatic, more engaging and (where appropriate) more infectious. The other difference was that the Svelte Shelf narrowed the gap between itself and the more expensive options. It's tempting to surmise that the energy spectrum emitted by the amps is narrower and more easily handled than that from the CD players, but that is only speculation. I also noted no significant difference in the magnitude of the benefits accruing under power amps as opposed to line-stages, which surprised me. The positives seemed to be consistent and cumulative, the more so if the same units were used under all the different components. Not surprisingly, the Symposium platforms could be successfully mixed, but mixing say the Symposium and the Stillpoints whilst possible could be unpredictable; using the component stand beneath the HP100 and the Ultra/2+ pairing under the RADIA wasn't pretty, with a weird, hollow tonality and detached, lumpy bass resulting. Like I said, suck it and see. Interestingly, the imperturbably even-tempered Super Kinabalu was happy to play with anyone, but I'll come back to that later.

### Valve electronics

With their large (generally) frame type transformers and high mass, their hard-wired construction and microphony issues, you might well assume that tube amplification would be the ultimate application for these platforms – and in many ways you'd be right. As effective as they were beneath solid-state amplification, they were even more impressive (and fussy) with valves. Once again there were significant gains in detail and clarity with all these supports, and once again their basic character remained consistent. However, whilst the gains were far from subtle, they could be matched by equally obvious

downsides. Both the Symposium setups and the Super Kinabalu needed careful placement of their couplers if the bass and the timing of the music were to remain intact. Get them in the wrong place and all that clarity and information just underlines how drastically the temporal structure and low-frequency coherence have been disturbed. Once again, the Kinabalu reversed the footprint preferred with the Symposiums. But it was the Stillpoints Component Stand that delivered the most remarkable result.

With three legs and Stillpoints cones in place, using the stands under both pre and power amps produced an astonishing sound, remarkable for the transparency, detail and black background from the mid on up, the congestion, thickening and opacity of the one note bass down below. I was so astonished that I spent considerable time shifting leg angles and coupler placement, removing and replacing the Stillpoints, repeating steps to ensure that I really was hearing this. Well – I was, and all my changes resulted in changes but failed to alter the overall effect. Until, that is, I added the fourth legs: Suddenly sanity was restored. Now why that extra leg should make such a difference I really can't say, but its superiority under valve equipment was totally consistent, irrespective of pre or power, brand or function.

The moral of these stories is quite clear: use these supports with valve equipment and you can expect a major benefit – providing you take the time and trouble to get it right. That will take a little experimentation and some patience. Just don't take the results for granted. Even the four legs on the Stillpoints stand might well alter in a different context.

### Ringling the changes

The four-legged experience with the valve electronics had me reaching once again for the Wadia, hoping ►



► for further improvements here too. I was to be disappointed. Despite extensive trials and considerable inventiveness when it came to coupler placement, the big CD player simply refused to cooperate.



The fourth leg had it sounding fuller, warmer and lazier, lacking the snap, pace and drive that three point contact delivered. Whilst this may well be a one-off result, I was able to verify it with the Sugden.

So, suck it and see seems to be the order of the day. Certainly, valve electronics are the only instance in which four has proved to be better than three when it comes to interfacing with the Pagode stand.

I also took the opportunity to reinvestigate the placement of additional Stillpoints cones, in an effort to get around the "equipment on ice" effect of the Ceramic balls in direct contact with the unit. Reinstalling the Mini Inverse-Risers above the stand, I replaced it under the equipment, supported on a set of Stillpoints and Risers in the lower position. Sadly, whilst this is certainly more secure, it's also even more spindly and greedy when it comes to vertical space. Nor was I as impressed with the results. Under the CD player it went some way towards duplicating the effect of adding the fourth leg. Warmer and weightier, arguably smoother

and more comfortable, I'll take the definition and pace, transparency and immediacy of the cones in the upper position every time thanks.

### Making steel real

Having got a good grip on what these supports do when used in conjunction

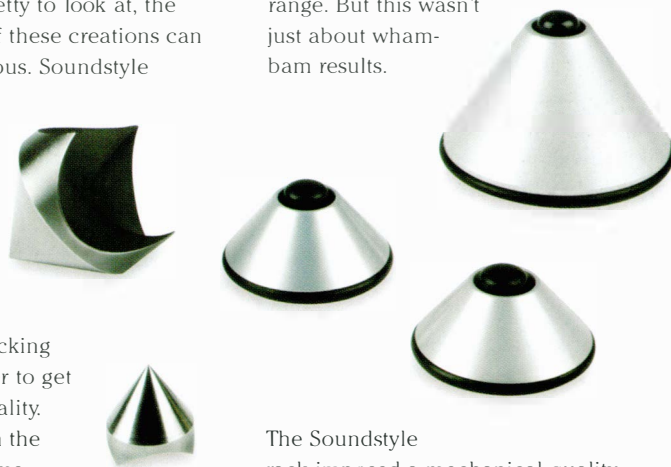
with a stand that provides sophisticated isolation from the outside world, it was time to get real and see how they work with the kind of steel and glass construction that became so popular a few years ago. Undeniably pretty to look at, the sonic results of these creations can be pretty hideous. Soundstyle produced one of the better versions (in both regards) and I turned to the one I still have knocking around in order to get a handle on reality.

Once again the various platforms exhibited their dominant characters, however, the details of their application changed significantly. Now, using Risers and Stillpoints beneath the component stand was definitely preferable, essential to achieving proper weight and power at the bottom end whilst also improving overall timing and banishing a persistent glare from the upper-mid. The problem is that in this context the cost of the Stillpoints components is such that the purchaser

would be better off looking for a much better basic rack.

The same really applies to the more expensive Symposium offerings and the Super Kinabalu although here the cost equation is closer. Given the need for a pair of platforms and an existing rack that has achieved a measure of domestic harmony, the cost is well worth considering. However, each extra layer makes it a less viable proposition.

In use, the Super Kinabalu delivered its by now expected sense of weight, power and inherent balance, the musical substance a stark contrast to the thinned out upper-mid and glassy tonality of the standard rack. I used the Kinabalu with its four rubber feet placed straight onto the glass with superb results, especially when it came to presence and dynamic range. But this wasn't just about wham-bam results.



The Soundstyle rack imposed a mechanical quality to rhythms and a rather clumsy sense of dynamic discrimination, almost as if it only had so many levels to select from. Installing the Kinabalu introduced significant subtlety to rhythmic patterns and shape to melodies, transforming the sense of Coltrane's 'My Favourite Things' and revelling in the complex patterns and interplay between 'trane's sax and McCoy Tyner's wonderfully convoluted piano lines. In this context, the Vertex platform

underlined just how seriously we should take mechanical isolation and the impact of spurious mechanical energy.

The Symposiums worked better in place of the glass shelves, standing directly on the little rubber feet that locate the standard items. Once again, the cost equation stands against the Ultra/2+ combination, but the Svelte shelf is another matter altogether. Priced at just £410 for a pair of shelves without couplers, they offer a really cost effective as well as visually attractive option. Add a set of serious couplers, like the Rollerblock Series 2+s, and the performance is excellent in this context. The added weight and presence deliver just what's required, along with significantly more natural separation, timing and tonality, completely banishing the glassy tendency of the rack in standard guise. The rhythmic expression is smoother and less accomplished than the Super Kinabalu 's but still much better than the standard rack. This is down to a slight loss of power and dynamic definition compared to the more expensive Vertex option, or indeed, the Ultra platform.

However, at this point let me invite the ire of not one but two manufacturers simultaneously, by suggesting a hybrid option. Rather than using the Rollerblocks with the Svelte Shelves, try the Vertex tripod and cones. They are available separately in two heights (35mm as shown here and costing £245/set, or 19mm – which occasionally necessitate the removal of equipment feet – for £195-50/set) and work an absolute treat with the

Symposium shelves. Not only do you get the lowest stack height of any combination, but the Vertex couplers offer far greater security for your equipment\*, which stays well and truly where it's placed. But the kicker is that they sound better too. Assuming all normal provisos regarding positioning etc the Vertex couplers bring



added shape and dynamic range, pitch definition and agility to the bottom end, without compromising much in terms of detail and separation across the rest of the range. Indeed, you could argue that their information delivery is simply better integrated, resulting in the added presence and musical purpose that comes with their inclusion. For owners of basic racks, this is a potentially winning combination.

### The cheapskate option?

Being as how we're discussing supporting individual components as opposed to systems here, and even concentrating on your primary chain, this is never going to be a cheap option, even using the Svelte shelves and Vertex couplers. Supposing just a CD player and integrated amp, that's still going to run out at around £800 –

which is hardly small beer, even though the benefits will more than justify the spend. Being mean by nature, I had to wonder if it was possible to duplicate the performance of the items under test using cheaper and simpler options but applying them in the same way.

A quick scout around the house turned up a selection of different cones and isolation pucks, bread boards and support platforms.

Now, whilst I've got more such things than most,

I reckon there's barely an audiophile house in the country without a few spare Tip-toes or the like lying around.

Assembling my booty into pairs of de-couplers and matching them to the various cones and other rigid coupling devices, I set about listening to the various combinations in search of audio cast-off heaven. Did I find it? Not exactly – but I got someway there...

What quickly became obvious was that there's no substitute for a proper platform. RDC shelves and slabs, a rather nice maple block from ERAudio, Torlyte and various layers of MDF (with and without soft interfacing in between) all came and went. Whilst some, notably the ERAudio slab and the RDC shelves managed to mimic the mid-band pace and separation of the Svelte Shelf, their bass was all over the place; overweight, over played and (worst of all) as it rumbled across the floor, over here. Lacking any sort of pitch definition or edges to notes, this was a definite non-starter.

However, when it came to couplers I had significantly more joy. I did try sets of three identical rigid elements, but the two soft/one hard combo

\* And yes, I realise that horizontal freedom of movement is a design intention of the Rollerblocks, but that's not what I'm referring to when I complain about security. The trouble is that the drag of cables and the like actually pulls the bearings off centre, which impedes their performance anyhow, as well as looking damned untidy. Horizontal movement I can handle, having lived with air suspension: Permanently displaced equipment that won't stay where it's put – that's another matter.



► was better every time. I had great results from both Ringmat cork domes and also RDC RDP-type trampoline feet, used in conjunction with either an RDC type 5 cone or a finite element Cerapuc or Ceraball foot as the rigid coupling element. Whilst neither combination could quite match the presence, transparency and silent background of the Vertex components, they got surprisingly close and gave nothing away when it came to pitch definition and



separation at low frequencies, timing, rhythmic subtlety and tonal colour. In fact, the results were pretty darned good. Likewise, the steel cones that are supplied with the ERAudio slabs and various other anonymous examples were still worthwhile used in the rigid coupling role, although aluminium cones were notably less successful. But the best thing of all is that even if you purchase these pieces new, they won't cost an

arm and a leg. RDC 5 cones are £20 for four, and Ringmat Domes are about the same, meaning that you can get enough couplers for four units for around £60. Which makes this a far more reasonable proposition. Cerapucs and Ceraballs cost a little more and deliver more detail and greater transparency, the extra cost of the 'pucs delivering extra weight and control at

the bottom end. But the real lesson here is suck it and see. Buy the shelves first

and play with couplers – a few steel cones or RDC 5s with trimmed down wine corks is a surprisingly effective starting point.

Bespoke couplers from Symposium or Vertex can be added

later, when cost allows (and the thirst for a further upgrade demands).

### Parting thoughts...

What these experiences, many and various, suggest is that this energy sink approach to equipment support is one that you should take extremely

seriously. Rather than representing an alternative to more established approaches, this represents an additional level of signal isolation to be used in conjunction with existing measures. The Super Kinabalu and Symposium Ultra platform deliver astonishing results once optimised, while the Stillpoints components have become a permanent and invaluable fixture in my system. Undeniably expensive though these support solutions are, their sonic and musical impact certainly justifies the cost when considered against the price of the equipment they're supporting.

But the best thing is that we're ploughing virgin territory here. Most equipment stands, indeed – most equipment designers, have paid little or no attention to this important aspect of performance. As such, even relatively ad hoc arrangements of the type I've just described can deliver surprisingly impressive results. Yes, you have to experiment with the components and yes, you have to experiment with the precise placement of the couplers, but it's worth the effort. You also have to pay attention to the amount of vertical space available when considering the options. My advice; investigate sooner rather than later. ►+

#### Prices and Contact Information

##### Vertex AQ

Kinabalu standard:	£327.50 – £395
Super Kinabalu:	£527.50
19mm Coupler Set:	£195.50
35mm Coupler Set:	£245.00

##### Manufacturer:

Vertex AQ  
Tel. (44)(0)1597 825993  
Net. [www.vertexaq.com](http://www.vertexaq.com)

##### Symposium

Svelte Shelf:	from £260
Ultra Platform:	from £465
Prices include large couplers (Set of three)	
Rollerblock Jr (Set of three):	from £180
Rollerblock Series 2+ (set of three):	from £330

Svelte shelf speaker platforms with no couplers  
£410pr in equivalent size (from £265pr)

##### UK Distributor:

Musicology  
Tel. (44)(0)1273 700759  
Net. [www.musicology.co.uk](http://www.musicology.co.uk)  
[www.syposiumusa.com](http://www.syposiumusa.com)

##### Stillpoints

Stillpoints Cones:	£225 (set of three)
Risers:	£75 (set of three)
Inverse Risers:	£75 (set of three)
Component Stand:	£395 (three leg) £95 per extra leg

##### UK Distributor:

Tact Audio  
Tel. 44(0)870 9100 100  
Net. [www.tactaudio.co.uk](http://www.tactaudio.co.uk)

##### Manufacturer:

Net. [www.stillpoint.us](http://www.stillpoint.us)

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**Stereo Times** June 2003

**For prices and product availability, please contact:**

Northwest – Acoustica (Chester) 01244 344 227

North Midland. – Acoustica (Stafford) 01785 258 216

Midlands – Griffin Audio (Birmingham) 0121 224 7300

Suffolk – Signals (Ipswich) 01473 655 171

Surrey – Infidelity (Kingston Upon Thames) 0208 943 3530

Southeast – Guildford Audio (Guildford) 01483 537 577

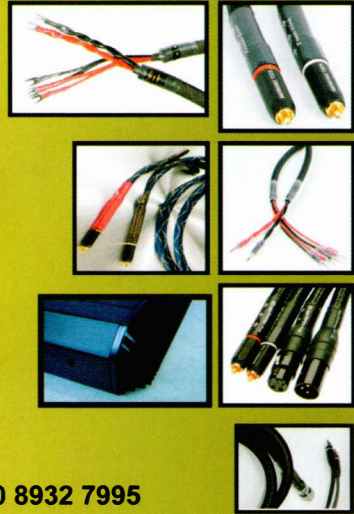
Central London – Robert Taussig 0207 487 3455

Bucks. – Hazlemere Audio (High Wycombe) 01494 865 829

Southwest – Audience (Bath) 01225 333 310

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# Head First ...

## Getting musical satisfaction from headphone listening

by Jason Hector

The birth of your first child and listening to music in a shared space are two very good and oft quoted reasons for investing in a decent pair of headphones. Paperthin walls and a neighbour with bat like hearing is another. But all three of these reasons are actually excuses for not using "proper" loudspeakers and as such are damning headphone listening with very faint praise. In fact when you consider the lack of any room interaction, the reduction of external noise influence, the fact that milli-Watts are adequate to drive them and the removal of the need for a big speaker box and all its colourations, headphones should have it made.

Personally I have never been convinced by headphone listening and have always treated it as a necessary evil; one that I actively avoid whenever possible. The question is, does that reflect fact or simple prejudice, and if the latter, is it based like so much prejudice, on a lack of experience and understanding? Well, now I've been tasked with discovering whether headphones offer a viable alternative to loudspeakers for serious listening, where they excel and where they fail.

This then is the first of a series of articles looking at various solutions to extract the greatest pleasure from headphone listening. However, we have perversely decided that the first of these pieces won't be a review of headphones themselves. Instead I'll be looking at a couple of well-regarded headphone amplifiers instead. The reason behind this is to establish a baseline or benchmark for minimum performance so that the driving electronics won't be a limiting factor. Of course, more than

one amplifier is required to avoid potential mismatches, while the units chosen are neither the last word in headphone performance nor the last electronics I'll be looking at (cheaper or more expensive). What they are is the sensible middle-ground – exactly where someone about to embark on some serious headphone listening might start.

But you can't listen to a headphone amp without a pair of cans and the respected and popular Sennheiser HD650 or HD595 were pressed into service. Both are large ear-piece open back designs and both are well made and proved very comfortable. They're also widely available and familiar designs, in current or former guises.

I used a very large range of music in these reviews so you won't find specifics relating to particular pieces, just general comments. For back to back comparisons I played Mahler's *second*, Ani Difrancos's *Living in Clip*, the eponymously titled *Magic Numbers*, Hejira by Joni Mitchell and J. J. Cale's *Troubadour* extensively.

### The Sugden HeadMaster:

I have already reviewed the rather handsome Headmaster as part of a Bijou system review in Issue 32. Then the review was written from the standpoint of using the Headmaster in its pre-amplifier guise, in this piece the emphasis is switched firmly onto its Headphone driving abilities. But the fact the HeadMaster is a remote controlled pre-amplifier as well as a headphone amplifier should not be overlooked. It means we get three line level inputs, a pre-output and a tape out all via phono sockets as well as the customary 6.3mm headphone socket on the front. The

remote handset allows control of the volume as well as various functions of other Sugden components while manual only input selection is by the rotary switch on the front. Casework on the Sugden is superb - solid plates of aluminium with cylindrical posts at the corners to hold it altogether creating a very attractive and totally solid component. Unlike the Naim, the

Headmaster consists of just the one box with



mains input via an IEC socket. The amplifier is solid state, operates in pure Class A and is implemented with discrete components.

When first listening to the Sugden nothing obviously grabs you apart from the music produced. The HeadMaster commends itself by simply getting on with the job of driving the headphones in a no fuss way. Plenty of detail is passed down to the headphones but you would never describe the Sugden as sounding overtly or hyper-detailed. Part of this can be explained by a sound that is perceived to have a slightly rolled off treble response. In reality the treble is there and at the correct level according to the measured spec, but it is low distortion and it is pure which is good news for low fatigue listening. The Sugden offers plenty of gain and is satisfyingly dynamic, however compared to the Naim the bass is not as

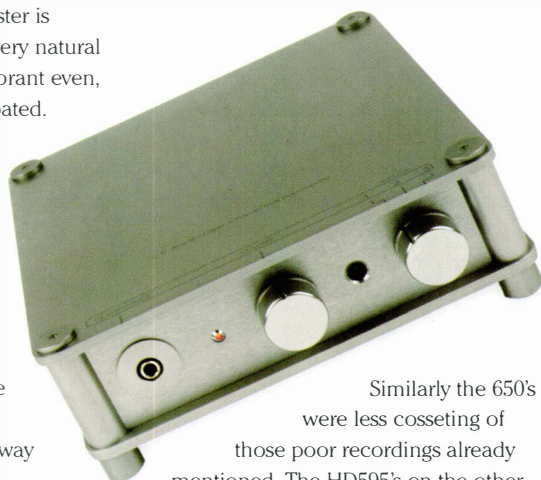
▶ extended and like the treble it is less prominent or emphasised. Instead the focus is firmly on the mid-band, the frequency extremes nicely supportive on either side without drawing attention to themselves. The result is open, unforced music. Tonally the HeadMaster is excellent, instruments are very natural and sound rich and real, vibrant even, without being syrupy or bloated. Similarly vocals are beautifully presented with wonderful realism in tone and subtle dynamic shifts although there is a softening of the impact of louder, staccato bursts. The result is an emotional rendition of a piece but one that is achieved in a more intimate and very different way to the Naim amplifier.

If a really badly recorded performance is chosen the overall sound produced could get a little laboured. So while I was happy enough with the presentation of poor quality recordings, there was a nagging feeling that this amplifier would thrive on something better. Unfortunately this makes the Sugden a little patchy with my own record collection, containing as it does plenty of dodgy re-masters and LoFi recordings. Even the best rock recordings tend to sound a little less full on and exciting with the Sugden. You might struggle to identify this in a demonstration unless you have an amplifier like the Headline for side-by-side comparison, as I obviously did, but then it is clear.

Although these headphones limit the perception of a large environment filled with music you can still get a feel for the relative scale of instruments and acoustics. The HeadMaster is a strong performer in this regard producing a big sound that emphasises the relative size of instruments. It is a good trick and helps to reduce the in your head sensation.

There was a clear difference

between the two Sennheiser headphone options with this amp. While the 650's made the most of the detail on offer and the wonderful rendition of tone they also exacerbated the laidback character of the HeadMaster.

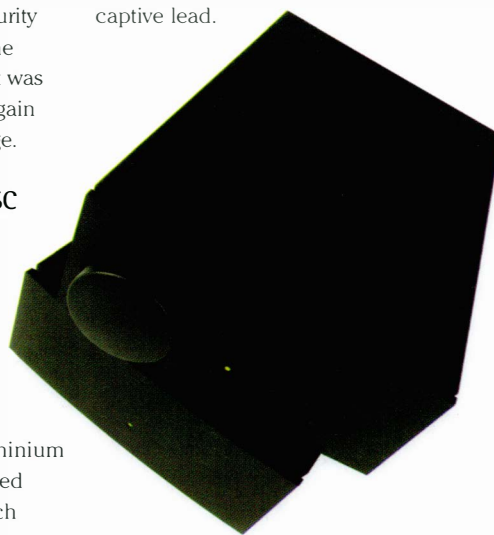


Similarly the 650's were less cossetting of those poor recordings already mentioned. The HD595's on the other hand simply sounded more alive and using these I was better able to connect with the sentiment in a piece, even when some clarity was lost. The purity of tone was also curtailed with the HD595's but 9 times out of ten that was an acceptable sacrifice when the gain in listener involvement was so large.

### The Naim Headline with NAPSC power supply:

The Headline is housed in a diminutive box that is approximately one third the width of a standard Naim case and has the convex fascia of one side of the triptych case. The casework is a very solid aluminium extrusion and the feet are designed to decouple the box from as much vibration as possible. The front is simplicity itself with just a volume control and a 6.3mm headphone socket. The rear continues the simplistic theme being graced with a two-pin power connector and a captive signal lead. The captive lead is normally terminated in a DIN plug making it suitable for connection to either the outputs of a Naim CD player or the record outputs

of a Naim pre-amplifier. I had a modified version to attach to the phono sockets at the back of my pre-amplifier or CD spinner. The power socket is suitable for direct connection to a NAPSC and if other supplies are used, a special Naim SLIC cable will be required. By keeping the power supply in a separate box Naim not only reduce any interference it may cause but also allow for simple upgrading. I used the NAPSC power supply but the other options possible include the significantly cheaper i-Supply or the much more expensive Flatcap2x. Combining a Headline, a Naim CD5x CD player and a Flatcap2x would make a very compact and persuasive CD and headphone system with both the CD player and the Headline benefiting from the better power supply. The NAPSC is housed in the same size case as the Headline and is as featureless a box as you are likely to find. The mains input is through an IEC socket and voltage output is via a captive lead.



The Headline circuits are made from discrete components and the various amplifying stages are individually internally regulated. Gain is controlled by an Alps potentiometer. The internal supply also features a slow start circuit to avoid the need for any switching between the output stage and the headphones themselves. ▶



▶ The Headline, unlike the Sugden, wears its heart well and truly on its sleeve. Plug in your headphones crank it up and prepare to be dragged along with the rhythm of the music. It is a long time cliché that Naim gear emphasises the leading edge at the expense of the rest of the note, a cliché that has been undermined by the more balanced performance of their recent product releases. The Headline harks back a little more than most to the older Naim sound. This is its strength (propulsion, never a dull moment, rhythmic commitment etc.) and its weakness, because it down-plays some of the information that makes acoustic instruments sound real and natural and helps to reduce the scale of a piece. The Headline can sound a little glassy at times with some false emphasis at the frequency extremes and a slightly pushy character. It is not a big problem and in isolation it is reasonably subtle; but in direct comparison to the Sugden it is audible.

The pure emotion in a vocal performance is extremely well handled by the Headline. Dynamic contrast is impressive and there is little hardening or indeed softening of a soaring vocal, the amplifier sounds very linear with sound pressure. The upper bass however is slightly woolly which means things can sound a little congested when the musicians are really busy in this area. The Naim handled my poorer recordings well because of its rhythmic focus, even bad recordings remained interesting and entertaining because the Naim at least managed to propel them along.

Separation of instruments was something of a paradox. The Naim

certainly presents instruments as more clearly separate, leaving the Sugden sounding as if it blurs the space between those instruments. Yet the HeadMaster offers a much more coherent overall sense of the recorded space and its acoustic.

With the Naim, the room around a performance seemed to be reduced and some of the atmosphere

was lost. If I was hearing this affect with speakers I'd say it was like moving further away but with headphones that description just doesn't make sense.

Still, hopefully you understand what I mean.

Comparing the two headphones, the Headline was better able to handle the HD650's somewhat relaxed rendition, giving them a much needed shot in the arm. However I still preferred the HD595's enthusiasm overall, though this was at the expense of some lost detail and timbre, just like the result with the Sugden.

### To sum them up ...

Both of these headphone amplifiers are good products and both are capable of excellent sound. The Naim majors on propulsion and rhythmic intensity, the Sugden sounds bigger, more tonally pure and more relaxed. So which is best depends on a few things, not least of which is what you look for in the music you mainly listen to and the Headphones you have. If you want to hear pure tone in choral, orchestral, operatic or small ensemble pieces then the Sugden edges it. Prefer fast paced electronic or rock music with an edge of the seat presentation? Then the Naim will be preferred. Similarly the combination of the slightly blasé HD650



and the Headline ended up sounding quite similar to the HD595's partnered with the HeadMaster. So one thing I have definitely confirmed is that the matching of phone's to amplifier is as important as the match of amplifier to speakers.

If you can make use of the remote controlled pre-amplifier functionality the Sugden is more of a bargain than the Naim, but for all out musical communication the Naim Headline (with the HD595) would be my choice. But for now we've established our benchmark for subsequent articles. You'll be getting to know both these units a lot better over the coming issues.



### TECHNICAL SPECIFICATIONS

<b>Naim Headline:</b>	
Suitable Headphones:	80ohms to 2kOhms
Bandwidth:	10Hz - 72kHz (-3dB points)
Power Output:	560mW per channel into 80ohms
Output Voltage:	3.7VRMS into 2kOhms (maximum)
Voltage Gain:	+13.5dB
Dimensions (WxHxD):	121x57x187 mm
Price:	
Headline:	£295
NAPSC:	£245
<b>Manufacturer:</b>	
Naim Audio	
Tel. (44)(0)1722 332266	
Net. www.naimaudio.com	
<b>Sugden HeadMaster</b>	
Suitable Headphones: Any impedance claimed	
Inputs:	3 x line-level
Input Impedance:	50kOhms
Input Sensitivity:	150mV for 1V output
Output Voltage:	5.5V (at onset of clipping)
Bandwidth:	10Hz - 270kHz (-3dB points)
Dimensions (WxHxD):	230x82x265 mm
Weight	3.5kg
Price	£659
<b>Manufacturer:</b>	
J E Sugden & Co Ltd	
Tel. (44)(0)1924 404088/404089	
Net. www.sugdenaudio.com	



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# Slashing the cost of high-end cable performance... The Supra Sword Loudspeaker Cable

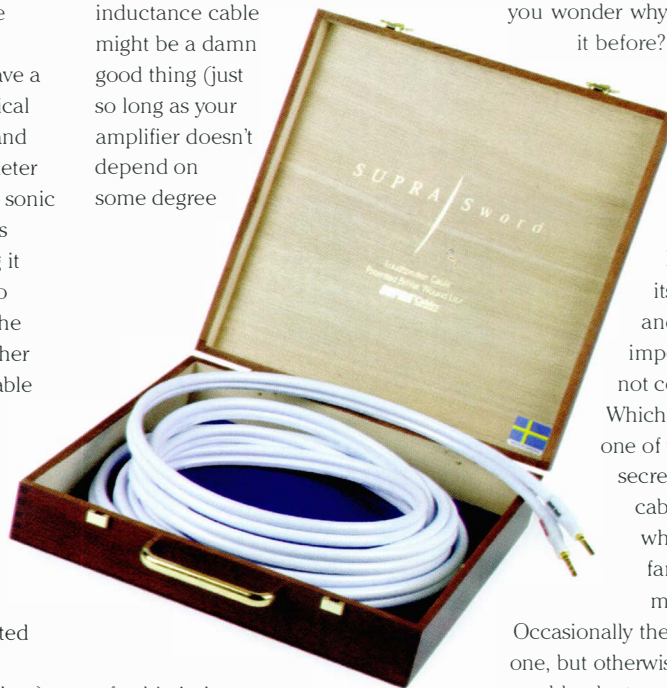
by Roy Gregory

There's nothing the audio sceptics and DIYers love to hate more than expensive cabling: it's all snake-oil, over active imagination and over developed profit margins as far as they're concerned. Which makes the new Supra Sword loudspeaker cable as interesting a challenge to the nay-sayers and curmudgeons as it threatens to be to the committed cable-peddling establishment. You see, here we have a cable with a sound claim to technical superiority in a readily measured and easily understood electrical parameter that should confer unquestionable sonic benefits. In short, the Sword offers virtually zero inductance, making it theoretically the next best thing to identical in performance across the audio bandwidth. Yes, there are other considerations, but as far as this cable goes, that's the biggy.

What's better still is that the cable comes from Supra, a company best known for budget cable product. Admittedly, the Sword is their new flagship design, but even so, a three-metre stereo pair, terminated in either Z-plugs or spades (and delivered in a rather nice wooden box) will set you back a mere £700, a sum which, whilst it isn't exactly chicken feed, barely registers on the radar usually used to detect high-end loudspeaker cables. But if it's so clever and potentially so good, how come it comes from Supra? No disrespect, but surely one of the boutique cable brands would have got there first.

Well, actually no. In fact, this cable could only have come from Supra – and therein lies the tale.

Audio nut and ex-telecoms designer Johnny Swård (yup, you guessed – it means sword in Swedish) had a bright idea. Given that signal transmission was his thing, it dawned on him that a zero inductance cable might be a damn good thing (just so long as your amplifier doesn't depend on some degree



of cable inductance to keep it stable – a la Naim Audio). More importantly, he figured out that you could make one by winding each conductor in two, closely coupled layers, one twisting clockwise, the other anti-clockwise. That's exactly what the Sword consists of. Cut open one of the pale-blue, 9mm thick conductors and inside you'll find a layer of 12

individually insulated copper solid-cores, twisted clockwise and separated by a thin layer of PE from an identical layer laid in the opposite direction over a solid PE core. Combine two such conductors into a classic 'Figure-Eight' lead (a la Naim NACA5) and there you have a speaker cable. Simplicity itself, you wonder why nobody thought of it before? Well, the answer is

two-fold: things always seem easier with hindsight, but more importantly, most cable plants took one look at the design, its limited applications and declared it if not impossible then certainly not cost-effective to produce. Which is where we come to one of the industry's best-kept secrets. Most of those 'audio cable manufacturers' whose names are so familiar don't actually make cables themselves.

Occasionally they might actually specify one, but otherwise, they simply go to a cable plant and buy reels of stock product that happens to be useful for audio applications (or so they think). If they buy enough they might actually get it screen printed with a brand name, otherwise nylon webbing covers a multitude of sins. Terminate it, stuff it in a box and there you go. It's astonishing how many popular audio cables feature in the pages



► of the RS catalogue!

Which is what sets Supra apart. Not only do they manufacture all their own cables, but they ONLY manufacture for audio and AV use. Offered the Sword design, owner Tommy Jenving was quick to appreciate both the advantages and the difficulties involved. But with total control over the manufacturing process and a commitment to the audio industry that made the cable's unique qualities a bonus rather than an obstacle, he undertook to develop a method of manufacturing the product.

Watching Jenving Technology make cables is a genuinely impressive process. A far cry from the hand-built, craft-like procedures more familiar to audio enthusiasts, a cable 'line' might be anything up to 100 metres long, with many individual stages and processes. Huge drums spin at one end, feeding multiple raw conductors into machines that wind them, extrude insulation, weave screens, add extra conductors or drains and finally add an external jacket. The options when it comes to materials and geometry are mind-boggling, but one thing becomes clear. Any cable in which one layer goes clockwise and the other anti is going to be a two-stage process – which makes it a very expensive and time consuming operation. The other thing that impresses is the precision that Jenving apply to their cables. Look closely at the lines and there's significant attention paid to the precise alignment and tensioning of each element, the speed of the process and the dimensions and tolerances of the extruded insulation. It's a factor perhaps best expressed by the fact that to-date, Jenving manufacture the only HDMI cable capable of operating over ten metre lengths – for most of the competition it's nearer two metres.

The end result of all this effort and attention to detail is, in the case of the Sword, a thick wire in the classical loudspeaker cable mould, set apart by its out-size dimensions and striking hue. Subtle the Sword is not, although its

relative inflexibility (at least in sideways terms) means that it lies in attractively sweeping, if not terribly compact curves. It only comes pre-terminated as listening has confirmed that the quality of the crimping used is critical to maintaining the cables' performance. Termination is via a proprietary Supra post, into which can be screwed a choice of either hollow 4mm plugs or heavy-duty spades (both were provided for review). My only other observation regarding what is otherwise an object lesson in product presentation is that I'd have liked clearer indication of the red and black conductors. That aside, open the wooden box in which the Sword arrives and I doubt you'll feel short changed by the contents.

This cable breaks our normal testing protocol by being solely available as a speaker wire. Cabling an entire system with Sword, my preferred approach, is therefore impossible, although I believe a matching interconnect is in development (what technology and configuration it will employ only the Lord and Tommy know). However, given the claims made for the Supra regarding its sonic invisibility, I decided to make an exception. In fact, I was sufficiently intrigued to present it with a worst case scenario, an entirely Nordost Valhalla system, with a pair of the Nordost wired Eben X-Babies on the end of it. Now, not only is the Nordost a horribly expensive cable, its benefits are cumulative. The more you use the better it sounds; the better it sounds, the less you hear it. Valhalla is the sonic invisibility cable champ as far as I'm concerned, so asking the Sword to step into its shoes provides a stern test indeed.

With the competing cables run-in and laid out, I started out on a series of detailed comparisons. I really shouldn't have bothered. Right from the first notes played through the Sword it was obvious that it was more than happy in this company. In fact, it quickly became obvious that it's a very special cable indeed. Compared to the Valhalla it lost

out a little in terms of the resolution of instrumental texture, the snap and immediacy of dynamics. It wasn't quite as transparent: the spaces between and around instruments weren't as easy to hear: the background wasn't quite as black. But I'm talking subtle differences here – and note that for the most part they're largely cosmetic and to do with presentation. Music? That's quite another matter.



When it comes to conveying the sense, the spirit and the energy of a performance, there's little to separate the Supra from the expensive Nordost cable. Pace and timing are both exceptional, the soundstaging is broad and stable, but above all there's an innate sense of rightness about proceedings. Instruments appear where they should, notes when they should, there's a place for everything and everything's in its place. One of the things that makes the Nordost so impressive is the coherence and sense of unforced organisation it brings to recordings and music. Well, the Sword matches it in this vital respect, which makes it more than a match for most of the highly touted (and highly priced) cables out there. The theory says that the Supra cable should deliver ►

► information free from time delay or phase distortion and that's exactly what it sounds like. There's a natural life and pace about its sound, the way the various elements gel that makes music immediately engaging and attractive. There's no tendency for your attention to wander, no confusion about the music or its message.

The Sword isn't totally free of character. As the comparison with Valhalla suggests, it's a little more rounded, a bit warmer and fuller, especially at the bottom end. It can't quite match the absolute speed and dynamic discrimination of the Nordost cable, but makes up for it in terms of presence and solidity. Despite the warmth and weight at low frequencies there's no tendency to blur or smudge bass lines, confuse or obscure pitch or muddle instruments, which once again places it head and shoulders above most of the competition. It's also slightly more forgiving than the Valhalla, which is no bad thing. The question is, where does it draw the line?

The problem with putting the next best thing to a sonically invisible cable into your system is that it's not going to hide what went before. It's a problem

that has dogged Nordost; it's a problem Supra are about to discover. We've become adept at using cables to mask problems elsewhere in our systems, taking out a bit of brightness maybe, or injecting some life and dynamics. The Sword won't do that. What it will do is reveal your system in all its naked glory, which might well leave it looking a little like a one night stand without the alcohol and make-up (or after shave). You can wake up to reality, or go back to sleep and hope it will have disappeared the next time you open your eyes. It might be a bitter pill to swallow but the Sword will just have eliminated one of the two wrongs that was kinda, sorta making a right. Unfortunately, the rest is down to you – although you'll end up with a far better system in the long run.

So Supra's Sword is not a universal panacea. In fact, use it with a Naim or Lavardin amplifier and its zero inductance could result in the complete opposite, so make sure you check with your dealer first regarding suitability. But what it is, is by far the most impressive, remotely affordable speaker cable I've come across. Whilst it underlines the problems presented by most of the cables offered to audio enthusiasts,

at least it also delivers a solution.

can't wait to try it in a wider context, preferably with better plugs than those fitted. I wonder how much of the resolution gap to the Valhalla would be made up if the Sword was fitted with one piece rather than screw on terminations? Even as it stands its performance is jaw-droppingly musical and seems set to cut a swathe through the opposition. I've always said that coming across affordable kit that really does the business is far more exciting than just another cost-no-object assault on the state-of-the-art. The Supra Sword sums that up perfectly: It's Cuvee Winston Churchill on a Cava budget and I love it. ►+

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# More on the Isotek Titan

by Jason Kennedy

As a result of being inundated with kit to review around the time that the Titan turned up I was able to try it with a number of different systems, thus augmenting PM's experiences. The original idea had been to see how such a device could improve the ATC SCM150 ASL active speakers. Having the power amps onboard with the speaker means that there is a limit to

the extent to which this side of the system can be upgraded. It's not like I can stick in another power amp to see how that would improve matters. Even if it were possible to get to the connection between the active crossover and drive units you'd need three channels of amplification per speaker – so three stereo power amps at least. But you can't substitute power

amps on these speakers so you're stuck with what the maker supplies. Fortunately this is very good but it's always nice to find ways of improving a system and the Titan claims to do just that even with the 350watt power amps on the ATCs.

Using the Titan with the 150s alone, leaving the rest of the system on the regular supply, brought about a ►

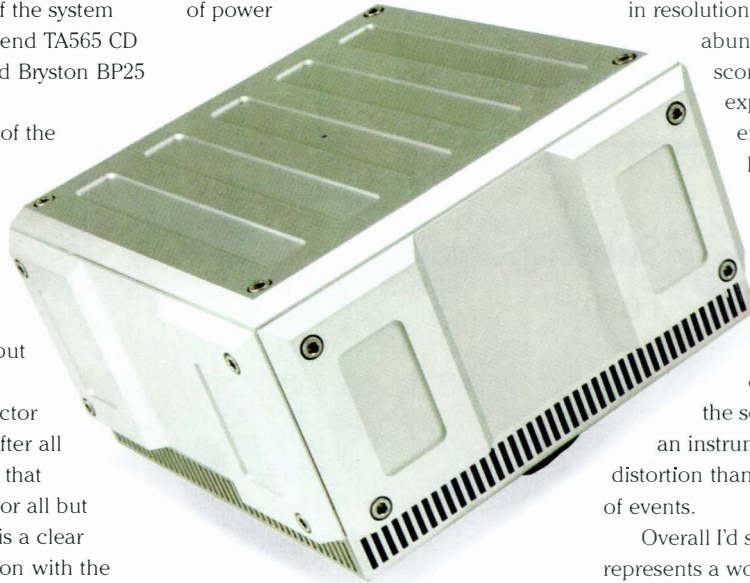


▶ notable increase in relaxation and openness, the bass in particular seemed to breathe more easily and the acoustic space around tympani increased in scale. There was also a sense that the decay of notes was more extended and natural. Elsewhere dynamics, which often suffer with any form of mains 'improvement', remained much as before, highs on the other hand seeming that little bit cleaner.

Supplying the rest of the system with the Titan – Townshend TA565 CD universal disc player and Bryston BP25 pre-amp – resulted in a smoothing/cleaning up of the sound and a slight improvement in timing without undermining energy, yet improving depth of tone. Taking the Titan out again revealed brasher highs but more kicking bass – the latter quite possibly a factor of the extra bite at HF. After all it's this end of the range that provides the definition for all but the lowest notes. There is a clear improvement in resolution with the Titan, you get a fuller picture of the musical events with more harmonic detail and better decay. It's a bit like the transition from a drawn graphic image to a photo; you lose some of the clarity of outline in exchange for greater overall shape and colour.

Keith Jarrett's *Changes* album on vinyl, without the turntable and phono stage in the Titan line (my SME has a Wave Mechanic regenerator which Isotek says tends not to work well with the Titan), brims with energy and times a treat. The drum sound is killer and the dynamic range wide thanks to an increase in perceived contrast. There is also a general polishing of the sound that's not too far from the difference between copper and silver cabling. The Titan offering the silver version of events to the extent that you seem to be able to play louder and longer in comfort.

I got a different result with a pair of Audiostatic DCM5 electrostatic speakers even though their stators were not actually on the Titan. These combined with the Bryston pre-amp and Gamut D200 power on the 'supply' seemed to suffer a loss of image depth and decreased tonal resolution when playing Stanley Clark's bass strings. This could be because these speakers soak up a lot of power



but as I understand it you're getting a cleaner version of what comes out of the mains from this unit, not regenerated mains which might limit such factors. What's more confusing is that the disc player sounded better through these speakers with the Titan on its supply. At least until a weird incident with a Martha Wainwright track which sounded strangely disjointed and not right (not Wainwright) with the Titan in-line. Removing it sorted this genuinely musical problem out immediately. I didn't have time to go further with the Audiostatics because they had to go but this type of speaker would seem to be a less easy customer for mains improvers such as the Isotek.

Back in the world of cones and boxes I put the top notch Ayre

pre/power combo (K-1xe/V-1xe) into the Titan whilst they were driving Living Voice OBX-Rs. These amps have pretty serious AC conditioning technology onboard and didn't seem to be much improved. If anything the sound became sparser and a hint slower with the extra filtering: not an ideal result.

Back with the ATCs and the K-1xe pre-amp alone however the increase in resolution was once more abundantly clear, Yo Miles' scorching *Upriver* disc exposed more of the energy and edge of the live to DSD sound on this fabulous recording. Henry Kaiser's guitar sounding more aggressive and in your face, which, while more challenging, is closer to the sound you expect from an instrument that specialises in distortion than the non Titan version of events.

Overall I'd say that the Titan represents a worthy contribution to road safety, it made most of my system(s) more gripping and real and would probably do an even better job with Isotek's matching distribution board. It did seem to improve the ATCs in a way that would be difficult to achieve otherwise, and I suspect that you'd have to spend as much on mains and signal cabling to get a similar upgrade. If you've already done that then this would seem to be the next logical step. Just check it in your system first to make sure. ➤

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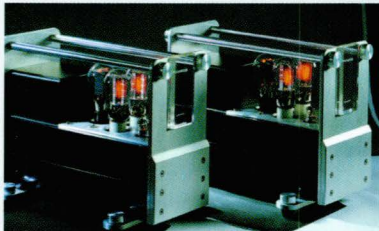
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

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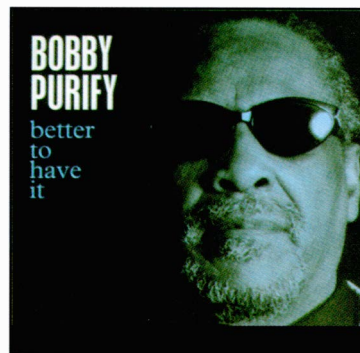
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The reviewers are identified by their initials.

They are:- Chris Binns, Pete Christie, Dave Davies, Roy Gregory, Jason Hector, James Michael Hughes, Jon Maple, Reuben Parry, Dave Ayers, Andrew Hobbs, Chris Thomas, Mark Childs, Simon Groome, Richard Clews, Sian Drinkwater.

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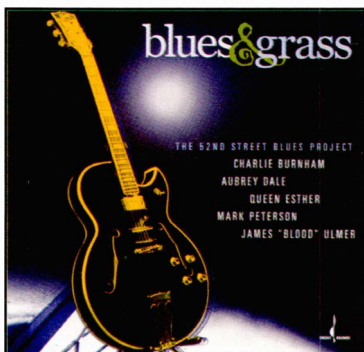
Proper Records PRPCD022 

In 1975 James and Bobby Purify had a huge hit with the Dan Penn song 'I'm Your Puppet', a southern soul nugget of some considerable quality. The duo parted company not long after and although Bobby resurfaced in 1979 with the album *Purified*, nothing has been heard of the great man since. He lost his sight in 1998 and officially 'retired' but was persuaded to return to the music business by old friend Ray Charles, who knows a thing or two about great soul singers. And let's make no mistake, Bobby Purify is a great singer; he's up there with the Percy Sledges and the Otis Reddings and any other classic soul singer you care to mention. Linking up once again with Dan Penn as producer and principal songwriter, Purify has unleashed one of the great soul records of recent years. Parts of his body might be showing signs of the ravages of time but that can't be said of his voice, which has remained 100 percent intact. It's a honey-and-molasses-with-a-touch-of-Bourbon voice, and it was created to sing Dan Penn's beautiful songs to the world. Featuring the cream of southern soul musicians, including long-standing Penn sideman Spooner Oldham, *Better To Have It* is without doubt a masterpiece, an album that will go down in history as one of the great comebacks of all time.

AH







The 52nd Street Blues Project

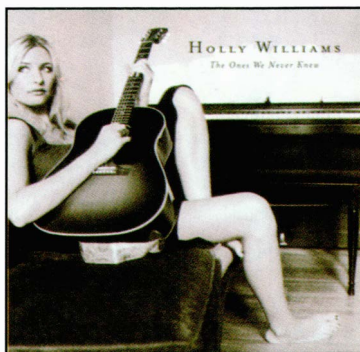
Blues & Grass

Chesky JD279 (CD)

A real curiosity this. The 52nd Street Blues Project comprises a mixed bag of musicians. James 'Blood' Ulmer (vocals, guitar), Queen Esther (vocals), Mark Peterson (bass), Charlie Burnham (vocals, mandolin, fiddle), and Aubrey Dale (drums) are captured here in a live set from April '04. The collective vision is to fuse blues and backwoods roots music, bringing together the Mississippi Delta and the Appalachian Mountains in a way that's truer to these roots than many other more sophisticated modern interpretations. Does it work? For me, yes. There's so much slick beautifully played stuff out there that the relative rawness of the fiddle playing and guitar here are a refreshing change. You're quickly captured by Blood Ulmer's rootsy blues in the opening 'My Favourite Thing' and then captivated by the walking bass that introduces Queen Esther's jazzy take on 'You Lied', moving smoothly into a Blood Ulmer instrumental 'Recess' and 'My Prayer' with earthy fiddle contributing to Ulmer's heartfelt vocals. 'Queen Esther's Blues' deliver just what it says on the can: "I'm looking for a man who's never been in no white man's jail...never learned no white man's rule..." 'Watermark' sees Burnham delivering a superb fiddle solo that pretty much defines the set and is one of the best tracks here. I really like this CD. It bothers to be different compared to so much modern material and retains some real feeling to it.

Supplier: [www.vivante.co.uk](http://www.vivante.co.uk)

DD



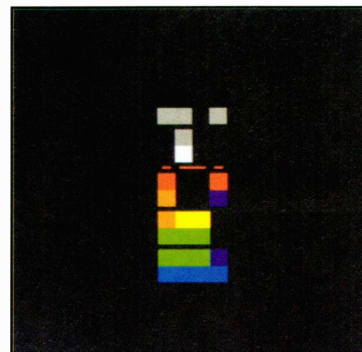
Holly Williams

The Ones We Never Knew

Universal South 0602498623398 (CD)

Okay, let's get Holly Williams' family tree out of the way before we go any further. She is the granddaughter of Hank Williams and the daughter of Hank Williams Jr, and I'm sure she's sick to death of people reminding her of that. This musical heritage would be particularly daunting for most 23 year olds, but Holly is at pains to point out that she is her own woman. Listening to *The Ones We Never Knew* offers absolutely no clues to her background, as it is more rooted in the acoustic singer/songwriter and country folk genres, rather than the more traditional Nashville country sound. A late starter, Holly didn't pick up a guitar until she was 18, but it didn't take her long to grasp the art of song-writing. For a woman who confesses to a relatively trouble-free upbringing, she seems to understand what it means to suffer. She's an observational writer, a sponge who absorbs other people's failings and misgivings and turns them into beautiful and touching narratives. These are haunting and mellow songs with gorgeous, hidden melodies that have a way of meandering into the listener's subconscious with repeated plays. It's a slowburn album with immense depth and maturity, one that marks Holly Williams out as a name to watch out for - albeit on her terms.

AH



Coldplay

X&Y

EMI 07243 474786 2 8 (CD)

I wasn't going to review *X&Y*, I really wasn't. There had been so much press surrounding its creation and release I couldn't believe anyone could still be unaware it had come out. There had been so many promotions on the radio I couldn't imagine anyone could have failed to have heard at least a representative sample of the record. So I bought it, I listened to it a few times, and I put it down, having come to the conclusion that it wasn't as good as *A Rush of Blood...* So what made *X&Y* worth reviewing? I suspect the truth of the matter was that I was being stubborn - trying to not like it. This record doesn't have the initial punch of their last album. But after a while I had to admit to myself that *X&Y* had crept under the radar and embedded itself in my consciousness. And so I began to wonder: if I had been avoiding it, how many others have been doing the same? *X&Y* is worthy of a review not because it is great, because their last record was great, or because every review so far has declared its greatness. *X&Y* is worthy of a review because it is even better than could be expected. It's a perfectly formed album, full of songs with the power to touch you, honestly sung and sympathetically produced. Sometimes an album deserves the attention.

MC











The Waifs

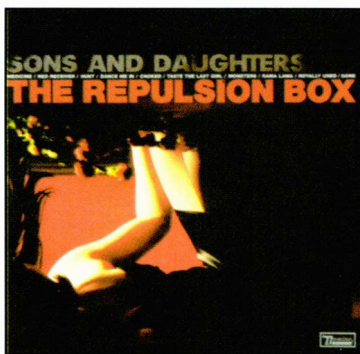
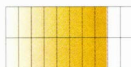
A Brief History... Live

Hot Records WAIFSCD00 

I was in a record shop in Freemantle a few years back having a conversation with the guy behind the counter about the local music scene. Without further prompting he headed off into the racks to pull out the latest Waifs studio album. Impressed, I coughed up and took it back to dear old blighty, not expecting them to cross my path again. Not the case. Brighton's Hot Records put faith in them and The Waifs duly obliged with their usual round of relentless gigging, culminating in a sensational appearance at the Cambridge Folk Festival where they overshadowed much bigger names with their impassioned performances. Now they release *A Brief History...*, a two CD live set recorded at various locations in their native Australia and an opportunity for music lovers to find out what the fuss is all about. For the uninitiated the Waifs are sisters Donna and Vikki Simpson and Josh Cunningham, a guitarist of some considerable talent, and together they produce a delightful blend of folk rock imbued with the true heart of the master singer/songwriters. It's easy to see where the appeal lies with this band on the live circuits. They have the ability to make you feel they're performing just for you. Dylan's a fan, and if that's not a good enough endorsement of their talents, then I don't know what is.


AH

RECORDING  
MUSIC



Sons and Daughters

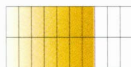
The Repulsion Box

Domino Recording WIGCD155 

Sons and Daughters seem to have quickly built an enviable reputation, almost entirely based on word of mouth. It seems everyone has heard of them, knows they are supposed to be very good, and yet hasn't actually heard any of their songs. They're Scottish, and proud of the fact. Just as the softly spoken lead singer from Maximo Park suddenly goes all Teeside the moment he steps in front of a microphone, Sons and Daughters sing in their own accents. Whilst this is not a problem in itself, at times I wonder if a softer approach might have covered the singer's shortcomings slightly better. The truth of the matter is that the female lead can only just cover the complex songs. But once the guitarist joins the vocal duties things get much, much better. *The Repulsion Box* seems to owe a lot to Nick Cave and *Murder Ballads*. Each song is a short story played out to music. But the key to Sons and Daughters is the interplay between the band members. This album comes across as a finely balanced drama, played out by the guitar and vocals. Dark, evocative guitar lines blend with simple bass-lines, whilst dual vocals play off against each other, all accented with some unusually well recorded and produced percussion. This record is a fresh debut that sounds stubbornly different. It's not perfect, but it's certainly pretty good fun.

MC

RECORDING  
MUSIC



Lucinda Williams

Live @ The Fillmore

Lost Highway 8000236802 

In the past Lucinda Williams could be accused of a less than prolific output. She's shifted gears in recent times, releasing albums once every one to two years, but she hasn't succumbed to quantity over quality - far from it. *Car Wheels on a Gravel Road* was the record that made the world stand up and take notice of this amazingly talented and robust woman, being swiftly followed by the sensuously low key *Essence* and then *World Without Tears*, where she scored a lot of radio airplay (especially from Johnnie Walker) with the sex-soaked 'Righteously'. Now comes her first live release *Live @ the Fillmore*, an album that confirms her status as a top drawer concert puller. This superbly produced double CD bristles with the kind of performances that make you wish you had been there. Disc one concentrates more on Lucinda's tender side, although there is an intensely sleazy version of 'Changed the Locks', where guitarist Doug Pettibone contributes some of the filthiest playing this side of *Exile On Main Street*. His input on both discs is a constant delight: One minute tender and aching and the next a wicked mixture of slide and pedal-induced fury. *Live @ the Fillmore* has definitely got its mojo working, it stands as a majestic testament to one of the world's greatest singer/songwriters.

AH

RECORDING  
MUSIC







Willie Nelson & Ray Price

Run That By Me One More Time

Lost Highway B0000616-01 **180g**

A couple of years ago these two old geezers with talent to burn put together an eleven song album of confident and deliberately delivered country ballads that was also smartly produced by them as well. Reassuringly nostalgic in tempo and tone, these grooves take us back to a time when music of this kind could pensively roam across the prairies to reflect upon fractured hearts, broken promises, loss and those missed opportunities of 'Deep Water, Soft Rain' and 'I'll Keep On Lovin' You'. There are harder edged nuggets too, which reveal a rich seam of vulnerability in 'I'm So Ashamed', 'I've Just Destroyed The World I'm Living In' and 'I'm Still Not Over You'. Yet, there is nothing antiquated about the presentation of these timeless themes. Willie and Ray in their different vocal styles, subtle interchanges, uncomplicated but cleverly compiled arrangements, quality playing and sharp eyed observations create atmospheric vignettes-sometimes brooding and always compelling in their visions of rural life. Lost Highway's unaccredited "Audiophile" pressing offers a nicely balanced and natural sound, good instrumental separation and warmly robust vocal images. Exceptional all round qualities across the board.

Supplier: [www.vivante.co.uk](http://www.vivante.co.uk)

RP



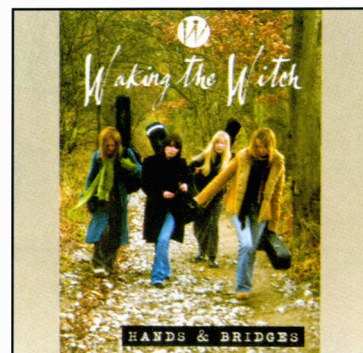
Lack

Be There Pulse

Undergroove UGCD021 **CD**

If you're looking for a light summer pop album, you'd be better off avoiding *Be There Pulse*. Lack may be a Scandinavian band, but you can forget comparisons with Roxette and Abba. They create a heavy monotonous drone that is very close in style to bands like And You Will Know Us By The Trail Of Dead. Their music is rhythmic and repetitive, with violent drum lines overlaid with dual chainsaw guitars. They then combine this with, how shall I put it... an interesting approach to writing. Their lyrics seem to contain a unique approach to rhyme and scan, with short, convoluted phrases that wilfully span musical phrases. Lack then scream these vocals with genuine pleading, clearly believing they have something important to say. Perhaps all this seems a little bleak and leaves you something short of rushing out to buy the record. But *Be There Pulse* is well worth the effort it requires. The record may be heavy and intense, but there are plenty of hooks buried just beneath the surface. And whilst Lack may initially sound pretty extreme, their music still swims close to the mainstream. Indeed, any of the opening three tracks, a beautiful set piece in themselves, could easily have been lifted for a single. *Be There Pulse* is a beast of a record, loud and purposeful, it is intensely powerful and hugely broad in scope.

MC



Waking The Witch

Hands And Bridges

Witch Records Witch-01 **CD**

Patsy Matheson, Jools Parker, Becky Mills and Rachel Goodwin make up Waking The Witch, a Leeds based band with massive potential who on the strength of *Hands And Bridges* can take the art of four part harmonies to a level not heard since Crosby, Stills, Nash and Young. All the girls have had success as solo artists but when they teamed up to write together they realised they had something special as a collective unit. *Hands And Bridges* is their second release and everything from the writing, playing and singing to the arranging and production has been handled by themselves, and a credit it is to them too. Of the ten songs my personal favourite is 'Bluer Than This', written and sung by Jools Parker and literally overflowing with dreamy harmonies and the deftest acoustic guitar work. It also contains a break where one of the other girls soars skywards with a succession of 'oohs' and 'yeahs', one of those transcendental moments when music has the power to smother your skin in goosebumps and raise the hairs on the back of your neck. The city of Leeds may no longer boast of a premiership football club but at least Waking TheWitch has given them a premier league band to be proud of.

AH



# Bob Dylan's Rolling Thunder Revue

by Reuben Parry

## The Bootleg Series Volume 5

Columbia / Classic Records C2K 87047-1



The Rolling Thunder Revue was a unique moment in time when one of the most influential and prolific figures in the history of popular music went through a surreal journey of self-examination and discovery to emerge as though reborn from these impassioned and deliriously vital

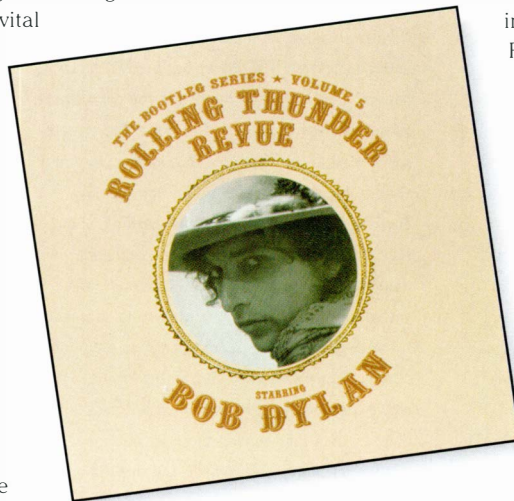
performances of his classic songs.

Bob Dylan's "Live in 1975" circus hit the road on October 31st in Plymouth, Massachusetts and moved from small town to small town giving largely unannounced concerts. This old-time travelling medicine show with the ghostly white face painted Dylan wearing a hat covered in flowers was to spiritually tap into those honest, perhaps barely remembered (or could that be nearly forgotten) values which had somehow fallen by the wayside on his earlier tours. A connection to folk music's illustrious past was guaranteed through the presence of Rambling Jack Elliot who had been a contemporary of Woody Guthrie. In addition while an extensive and constantly shifting stage line-up brought together performers from quite diverse musical backgrounds, there was always that tightly knit core of stellar musicians to gloriously champion the folk-blues movement. The show never lost any of its momentum because the performances were regularly sharpened on this human whetstone. Also present were the violinist Scarlet Rivera, bass player Rob Stoner and on piano and drums, Howie Wyeth. This was the backing band featured on the album *Desire* that was released at around this time. Joining them at the suggestion of Dylan's close friend Bobby Neuwirth (vocals and guitar) were guitarists T-Bone Burnett, Steven Soles and Mick Ronson, as well as the multi-instrumentalist David Mansfield – and they put together some mighty efforts. However, your ears are inexorably drawn towards Bob Dylan's fascinating reunion with the lovely and

beguiling voice of Joan Baez and, for one track at least, the ex-Byrd Roger McGuinn who on 'Knockin' On Heaven's Door' appropriately enough closes out this set at the end of side six.

The twenty-two songs in this three LP box do, to a point, span Dylan's meteoric career up to that time. All the way from the politically astute 'A Hard Rain's A-Gonna Fall' to 'Mr. Tambourine Man', "Tangled Up In Blue" and of course the tour's cause celebre 'Hurricane', an old fashioned protest

song written about the wrongly imprisoned middleweight boxer Rubin 'Hurricane' Carter. The outspoken Carter, who loudly and intelligently voiced his opinions on racial matters, fell foul of the old fashioned system of white justice, finding himself framed for a murder he didn't commit and behind bars in a blink of an eye. That was back in the mid-Sixties and his case came to prominence because he wrote an account of these experiences from his prison cell, one that came to



Dylan's attention. Carter's character might well have been rather more questionable than Dylan supposes, with evidence to suggest that, even if he wasn't guilty of the crime of which he was convicted, then others certainly figured in his past. But his intelligence and colour captured the moment and Dylan's eye.

Joan Baez features here on four tracks 'Blowin' In the Wind'; 'Mama, You Been On My Mind'; 'I Shall Be Released' and the traditional folk song 'The Water Is Wide'. Many will think it worth the entrance fee for these alone and I agree. Her empathic and often-playful performances alongside Dylan's unique sounding delivery have that precious spine tingling quality about them. But you ignore Bob at your peril. He's a live wire act all on his own. Born to tour, born to duet with Baez and born to strum or caress those acoustic and electric chords, he comes across as a supreme, clear sighted entertainer whose burning social conscience and



▶ enthusiasm overflows through the sheer vitality of these performances, taped so long ago and now beautifully reproduced for these LPs. Understandably, the bootleggers have had their fun down the years and a fast buck or two has been made from the Rolling Thunder concerts. Yet none of those crude offerings have come anywhere close to doing the Revue justice. Now, from out of the vaults comes the original multi-track magnetic tape used for this "official" Bootleg Series release and what a difference that makes. It only employs those recordings made by engineers of the day in a mobile sound truck that was present for the Worcester, Boston, Cambridge and Montreal gigs.



It's hard to fault that sense of sweat soaked excitement and immediacy generated by an interaction of truly wonderful musicians and these adoring audiences. Drop the pick-up, any groove will do (but for my purposes I'll go with 'Hurricane') and you'll hear why sometimes it pays to listen to music that wasn't crafted within the sterile environs of a studio. This pulsating track is a living, breathing entity. Cheers greet its birth, whistles and applause smack it into life as the band break into the opening bars and Bob's voice works away on our emotions. Bob, Joan and the crew cause us unprecedented degrees of soul searching. In 'Hurricane' this is heightened through a string melting spontaneous combustion where the searing violin playing and the elasticity and fervour of Dylan's vocal threads is totally irreplaceable. Classic Records should be commended for their sympathetic treatment of these master tapes. The articulate and wide-ranging sound produced by these weighty LPs is

impressive. The mix does not deny us any of the truthful and indelible pleasures that can be found in a live performance. Clarity, dynamism, inner detail (both musical and non-musical) enhance an experience that almost overloads the senses. Bob and his genius cast of sidemen and women can, in one song, blaze away with rarely heard intensity and yet, with subtle shifts, generous solos or sweet ensemble playing, delicately lift a veil on the deepest most impenetrable and personal of feelings. The degree of transparency and separation here creates extremely clean instrumental and vocal lines to expose the very heart of a theme or observation.

Moreover there is nothing turgid or sluggish in the way in which the vinyl lays out these stirring tunes. They have a real zip and urgency about them that again, contagiously helps to draw you ever closer

and deeper into the subject matter. Aesthetically, Classic have produced a sumptuous set that, all the way from the embossed, heavy card box to the LP inner sleeves decorated with four photos, right down to a glossy 62 page colour book telling the story of the Revue in detail, treats us to a tactile feast of images and textures.

They have even gone so far as to reproduce the Rolling Thunder postcard, tour poster and tickets, while a blue vinyl seven-inch single of 'Tangled Up In Blue' and 'Isis' is the final adornment to a superbly conceived and executed project. Classic's great chunks of pancake flat vinyl do help to deliver a reassuringly solid sound. Step aside SACD. Sometimes analogue's distinctive qualities just naturally have a bit more to offer. Here though, with so much thought, detail and care going into this collection you could almost be forgiven for thinking that the Long Playing Record was the format of the future and not a much lauded silver disc counterpart. It is hard to put a value on the tactile nature of this release but if you compare it to a double, limited edition CD, which comes with a DVD instead of the seven-inch single, then the digital solution seems to somehow be lacking in substance. No matter what the source, this remains a musically significant release.

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## Barb Jungr

### Love Me Tender

Linn AKD255 

Barb Jungr has gained a reputation as one of the world's finest cabaret singers, her previous releases for Linn having taken in the chansons of Jacques Brel, Dylan and even the Kinks. Here she takes on a challenge in re-interpreting songs made famous by Elvis. The sole exception to the 'by Elvis' rule is the Jungr/York composition 'Looking for Elvis'. Opening with 'Love Letters' in a sparse arrangement, Jungr's expressive voice is given full reign and adds an emotional layer missing from the original. Not all tracks here are equally successful: 'Wooden Heart' gets a brave attempt but the tweeness of the song, the sophistication of Jungr's voice and the cleverness of the arrangement somehow never gel. 'Are You Lonesome Tonight' is much more like it with a very slow arrangement bringing out all the yearning in the lyrics. Accompanied by sparse piano chords, celeste notes like gentle raindrops and soundscape effects suggesting a wide, barren plain this is one of the best numbers in the set. Likewise her very lovely version of 'Always On My Mind'. Despite the occasional near-miss ('In The Ghetto' is so iconic in the Elvis canon that although Jungr delivers a heroic interpretation it can't banish the power of the original), this is a really strong, very well arranged and hugely enjoyable set.

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DD

RECORDING   
MUSIC



## Diana Krall

### The Girl In The other Room

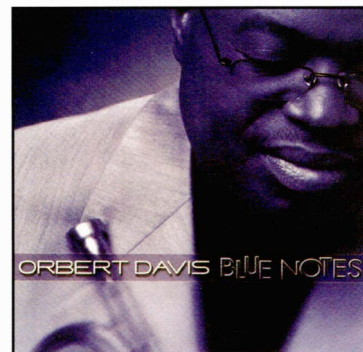
Verve 0062498630686  

Mentored originally by Jimmy Rowles and Ray Brown, Diana Krall is enjoying huge international success after a long climb to the top. It's worth remembering that she'd spent a good decade playing small clubs before gaining real attention and has thoroughly earned her spurs. This set sees her featuring songs co-written with her hubby Elvis Costello along with her interpretations of numbers by Mose Allison, Tom Waits, Joni Mitchell and other assorted luminaries. Not all are equally successful; no one does Waits like Waits and despite a noble effort 'Temptation' comes across as a little lightweight for my taste. Her reading of Mose Allison's 'Stop The World' however is much more like it and much more suited to her smokey tones. Her take on Costello's 'Almost Blue' is also a treat with Krall bringing a fresh perspective to this familiar number. 'I'm Pulling Through' gets a slinky and sensuous reading and Krall's take on Joni Mitchell's 'Black Crow' whilst not surpassing the original is a valid and very enjoyable interpretation. There are a few 'ho-hum' numbers here too, that are perfectly competent but feel like filler. Fortunately they're more than offset by the much stronger numbers that make up the bulk of the set. Produced by Krall and Tommy Lipuma and mastered by Doug Sax, the recording is solidly three-dimensional, dynamic and 'in the room'. A good clean pressing too.

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DD

RECORDING   
MUSIC



## Orbert Davis


### Blue Notes

3 Sixteen Productions CD31603 

One of Chicago's busiest musicians, trumpeter Orbert Davis has played on stage with the likes of Monk, Ramsey Lewis and Dr John. Joined here for two numbers with singer Dee Alexander the set largely comprises his own compositions although Herbie Hancock and Wayne Shorter also get a look-in. Opening with the album's title track, a slow burning number with lovely sultry singing from Alexander floating above Davis' muted trumpet, things pick up pace with the bands version of Shorter's 'Hammerhead'. It fairly races ahead with crisp brass and punchy percussion driving Davis on to some excellent solo work. Shades of Hancock's 'Watermelon Man' lurk in the background of the conga driven 'Back In The Day' before the band moves on to the delicate, ethereal 'Dear L'Ana' with Davis' first outing here on flugelhorn. For sheer enjoyment the percussion and bass led opening of 'Real Deal' before the brass kicks in, is hard to beat and so it goes through an enormously enjoyable set. There's no pretension here, just punchy, solid and superbly played jazz with a funky twist. The bonus is that it's been captured in an appropriately weighty and dynamic recording that does very full justice to the music. Orbert Davis and 3 Sixteen Productions were both new to me. I shall watch out for them both with great interest in the future.

Supplier: [www.3sixteenrecords.com](http://www.3sixteenrecords.com)

DD

RECORDING   
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Carlos Franzetti, The Jazz Kamerata

Play the Music of ...

Chesky JD283

A classically trained pianist, singer and composer, Franzetti has assembled a fine band to help realise this project. His aim was to take jazz standards (not pop songs that later became jazz standards) such as Bill Evans' 'Very Early', or Miles Davis' 'Circle' and to arrange them for a chamber jazz ensemble comprising piano, sax, violins, viola, flute, clarinet and bass. This could have been a disaster with the classical forces outweighing the essential soul of this music. But thankfully, Franzetti and the ensemble have pulled off the artful trick of retaining the jazz flavour of each piece whilst laying down a remarkably consistent, restrained, cool and melodic flow that carries throughout the album. Standouts include their stately version of Wayne Shorter's 'Nerfertiti' with Franzetti's piano and Lawrence Feldman's sax to the fore. Steve Kuhn's 'Last Year's Waltz' gets a delicate, string-heavy version with Feldman's sax floating above it all. The effect is like a classy film soundtrack and that's no bad thing. Bill Evan's 'Very Early' gets a particularly fresh and airy reading and the set winds down with a low key and very beautiful take on Klaus Ogerman's 'Elegia' that for me most evenly balances the jazz and classical sides within the set and is the strongest number here. Another very good Chesky recording brings the best from a laid-back album that just begs for a late-night listening session.

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DD



Various

Showcase 2005

Opus 3 CD22050

For anyone who hasn't been lucky enough to have come across Opus 3 releases before (not a difficult thing to achieve should you rely on purchasing from the increasingly useless high street retailers) you're in for a treat. Opus 3 have built a reputation over the years for an interesting and wide-ranging repertoire coupled with a very natural, full-bodied sound. It'd be a very odd music lover indeed who didn't find at least a few nuggets to excite their interest within this compilation. What's more, although they built their reputation on stellar analogue recordings and pressings, their skills have transferred equally well to digital and SACD in particular, where their DSD original tapes, both stereo and multi-channel, are powerful advocates for the new format.

To take a few samples at random, The Erik Westberg Vocal Ensemble were previously only known to me via a single track on an earlier compilation. Here they positively shine in two (unseasonal I know) carols and best of all in 'Across The Bridge Of Hope' from their album of the same title, which is as perfect and perfectly recorded piece of modern choral music as you could hope for. 'Wino's Dance' from an artist new to the label, slide-guitarist Peder af Ugglas, is a weighty, funky workout with the smoothly captured guitar set against

solid percussion, double bass and fruity, full-bodied trombone. Perhaps the best known Opus 3 artist is Eric Bibb who doesn't disappoint here with the gospel influenced 'I Want To Be Ready' and the harmonica drenched instrumental 'Deep Sea Blues'.

The Global Percussion Network throw in a fascinating piece from their album *Rauk* that is delicate, entrancing and superbly recorded (even better I suspect in surround), making the seeking out and purchase of this album an obligatory task. 'Valse Mignonne' is a delightful and delightfully recorded organ piece that without resorting to histrionics a la *Pictures at an Exhibition* will quickly sort out the men from the boys in the reproduction of deep bass. And so it goes. The band Tiny Island contribute a lovely instrumental recorded in a 13th Century church. There's an 'in the room' andantino from Brahms' Clarinet Quintet, an 'in the club' small jazz band piece, and much more. The album closes with another Peder af Ugglas track with his guitar soaring majestically over an organ accompaniment. A fitting end to an outstanding and appetite whetting compilation.

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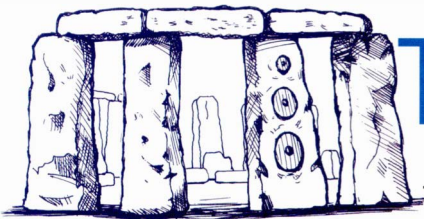
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# The History Man

by Richard S. Foster

## The Living Stereo and Mercury SACDs, part two. Digitally speaking, is this as good as it gets?

This is the same question with which I began the listening session for part 1 (Issue 37). However, in one sense at least, I now know that the answer is a definitive “Yes”. If you read about my travels to Sound Mirror in Boston and Das Emil Berliner Haus in Hannover, you’ll be aware that, whilst the first batch of Mercuries lagged behind their RCA counterparts for quality, this was down to two things: the decision not to re-master their CD layer and the condition of the original tapes.

The consistency of the RCA releases is extremely good, their down-converted CD layer easily bettering any of the other CD versions of these recordings that I’ve heard. So, even if you do not have SACD playback at this point-in-time, my suggestion is to purchase the RCA issues because you will derive enormous pleasure from the 16/44.1 layer. If you already own the Mercury CDs, then the song remains the same unless you can play the SACD layer. However, at least here in Canada, these are offered at bargain prices, with two for \$20CDN being typical. That makes them a bargain which you should scoop up now or you’ll regret it later.

In the case of the second set of releases, RCA has continued with another ten titles – including one double set, while Mercury has released only five. Please see the sidebar for the complete second series from both companies.

All the Mercury releases contain two and three channel DSD information. All the RCA releases of course contain two channel DSD. Six full discs contain additional three channel DSD. Two are two-channel only - *The Gaité Parisienne/La Boutique Fantasque* and the Brahms with Rubinstein and Reiner. The remaining two discs have almost half the material available in three-channel DSD. This depends upon the recording dates and because there is some very early material here, RCA had not switched over to three track recordings. (We’re talking 1954 to mid 1956 original recordings.)

Now while I may be disappointed in how the Mercury

SACD project is going, there is still no doubt that the DSD layer is far superior to the original CD issues. All I’m trying to remind everyone is that the Mercury tapes have been moved all over (the original CD material was done in Edison, New Jersey, and the master tapes are now all ‘somewhere’ in Hanover.) Add to this, the difference in philosophy of the two companies and you’re naturally going to have different products. Don’t get the impression that I dislike the Mercury SACD releases. Indeed, I think this latest batch are continuing

to improve. The problems lie with the source material. You just can’t move 40-50 year old tapes all of the world without damage occurring.

For example, the Starker disc contains one complete LP (Dvorak *cello concerto* and *Kol Nidre* and part of another: Tchaikovsky’s *Variations on a Rococco Theme*.) Now, based upon the liner notes and what I am hearing, the Tchaikovsky is an analogue tape and the Dvorak/Bruch is from a 35mm film recording.

I wonder what the Dvorak/Bruch analogue three-channel back-up tape (if it exists) would sound like. As far as I’m concerned, while the Dvorak/Bruch is satisfactory, the Tchaikovsky is glorious. This portion of the SACD is rich, vibrant, exciting and full of life – it’s a real winner. I’m cooler on the accompanying *Kol Nidre*. So once again, I presume we have tape issues. All you have to do is listen to the Tchaikovsky and you

will realize that there is absolutely nothing wrong with what Emil Berliner Haus is capable of delivering. Incidentally, all recordings were performed at Watford Town Hall, albeit the Tchaikovsky in 1964 and the Dvorak/Bruch in 1962.

The Liszt/Enesco contains some of my favourite ‘easy listening’ classical selections. This disc offers almost two full Mercury releases, US. SR90235 [Enesco *Roumanian*





► *Rhapsody No. 2* is omitted] and US SR90371. We start with Enesco's *Roumanian Rhapsody No. 1* and then move right into Liszt's 6 *Hungarian Rhapsodies*. Sonically this is an acceptable release, albeit there are some issues. The recordings from SR90235 (Enesco and Liszt *Nos. 2 and 3*) are a little dry. Nos. 1, 4, 5 and 6 are excellent...

Up next is the only Fennell release, *Screamers!* This contains almost all of SR90314 and *March Time*, SR90170. I have to tell you that this is one wild disc. If you like this type of music, there is no one quite like Frederick Fennell. The *Screamers* portion, all 16 tracks, were really well done. (They don't pay me enough to listen to this!!) The next dozen tracks from *March Time*, are equally dynamic and quite honestly, every time I listen to one of these recordings by Fennell, I find it hard to imagine the artists were all students. Great performances if this is your musical fare. Great sound throughout and there is nothing wrong with these tapes, that's for sure.

The next 70 minutes come from two US LPs, SR90300 and a portion of SR90305 (*Encore, Byron Janis*). We're treated to Janis' performing *Prokofiev's Piano Concerto No. 3* and Rachmaninoff's *Piano Concerto No. 1*, both with Kiril Kondrashin and the Moscow Philharmonic Orchestra. The concertos as well as the other shorter works (except the Schumann) were performed in Russia and captured on 35mm film but apparently that film was missing and not used for these SACD releases. The three-track analogue tapes were utilized and I think they've done an admirable job. This was extremely enjoyable and I recommend it heartily.

The last of the Mercury releases, *Balalaika Favorites*, may not be everyone's favourite. I happen to enjoy this disc and have always liked the exuberance that the Osipov State Russian Folk Orchestra brought to these performances. Re-issued from the 35MM film, transferred to 192kHz/24-bit PCM and then converted to DSD, some of the excitement seems to have been lost. Once again, the DSD layer is superior to the original 16/44.1 release, but apparently time has taken its toll on the tape. There are also several spots where you can now clearly hear the edits and I gather that this is as good as this release is going to get.

The RCA Living Stereo SACDs are cut at a higher level than their Mercury counterparts, something to bear in mind when making comparisons.

I'd never heard the *Brahms Piano Concerto No. 1* with Rubinstein, Reiner and the Chicago (recorded April 17, 1954) before I heard it here. This really is a fabulous sounding recording and for whatever reason, Rubinstein doesn't take up my entire listening area with his Steinway. One of the two-channel only SACDs, the master tape must have been awfully exciting to listen to. This is one terrific performance and while there would not be many collaborations with Reiner and Rubinstein, this one comes off exceptionally well. I loved it, even if the disc was only 46 minutes long. Big kudos to the teams of original producers: Richard Mohr and John Pfeiffer and those great RCA engineers: Lewis Layton and Leslie Chase. This is one not to be missed.

I hadn't listened to some of these Charles Munch's performances since my last outing with this series and I was pleased to be reacquainted with his Ravel and Debussy performances, drawn from almost two complete US Living Stereo albums, LSC 1984 and LSC 2282. He does an excellent job with *La Valse* (although I think Paray on Mercury is very special) and while his *Rhapsodie Espagnole* and *Bolero* are quite good, the hit of the disc for me is the Debussy: *Images for Orchestra*. The moods are evocative and the Boston Symphony is spectacular in their performance.

Another release which takes one complete and part of another record is the coupling of the popular Dvorak *Cello Concerto in b minor* with one of the most under-recorded

works for this instrument, the *Concerto* by William Walton. Of course Gregor Piatigorsky is playing violoncello and Munch is back with the Boston again. While this is not my favorite Dvorak performance, it is a fine reading none-the-less. The Walton, for me, is the star of this show and I can understand why it's been a long-time favourite of RG's. It's a shame that there was not quite enough room for Bloch's *Schelomo* as well (which was coupled with the original Walton LP US

LSC 2109). The sound quality is quite excellent and I hope you enjoy these as much as I do.

The releasing of the Dvorak *New World Symphony* with Reiner and the Chicago (along with Dvorak's, *Carnival Overture*; Smetana's, *Bartered Bride Overture*; and Weinberger's, *Schwanda: Polka and Fugue*) whilst offering a healthy 64 minutes of music, presents something of



► a puzzle. This *New World* was never a great performance and the sound quality on the record was pretty awful. While the sound has definitely been improved for this issue, what should be mentioned, or so the rumors have it, is that Lewis Layton, while given credit for being the engineer of this, was in fact, absent. Apparently there was a strike at RCA at the time and the second or third team (whoever they may have been) recorded the New World Symphony. It wasn't one of RCAs shining moments but, as the story goes, David Sarnoff – the head of RCA – decided to have Layton's name added to the



jacket regardless. How true this anecdote is, I can't say for sure, but the recording does not sound as good as any of Layton's other work. Listening to Offenbach's *Gaite Parisienne* and

the Rossini-Respighi recording of *La Boutique Fantasque* brings back early audiophile nostalgia. I well remember the long, difficult hunt for the original *Gaite* on short lived RCA LSC 1817.

(*La Boutique* comes from LSC 2084). This is great Fiedler material and he excels in this repertoire. If you like this type of dynamic, easy to swallow classical music, I think you'll be hard pressed to find better performances not to mention how outstanding the sound quality is... ambience galore with great bass as well. The Boston Pops loves this fare and Fiedler is one of the best. Extremely enjoyable.

Speaking of Fiedler, the all Gershwin SACD featuring Earl Wild at the piano offers up 79 solid minutes of fabulous music, playing and performance. This is a must own disc and the Sound Mirror guys really did their thing in bringing this to exciting new life. I'd love to hear this in three-channel DSD... but I can still absolutely assure you that you will find the two-channel thrilling. These performances come from two Gershwin LPs, LSC 2367 and LSC 2586. Some of this material has been on The Absolute Sound's Super LP list for years and justly so. The performances are some of the finest I've ever

heard and anyone who has the remotest interest in Gershwin needs to own this sonic spectacular. Here is another very exciting release and it was a pleasure to hear this in SACD. I'll revisit this one again... soon.

Moving to the Heifetz recordings in this group of releases, was another pleasure. There are several works in which I think Heifetz outperforms almost anyone, and two of those are on this three concerti SACD. I know RG is very fond of Camilla Wicks and her Sibelius. I like it as well – and there are others for sure. But there is something about Heifetz and the Sibelius in this performance that turn my crank. While he's almost always accused of technical superiority with very little emotional outlay, I think he owns this work. The Glazunov on this disc is another concerto with which he does a spectacular job: perhaps he and Walter Hendl conducting the Chicago just matched up perfectly. While the Prokofiev is also a fine outing, it is slightly overshadowed by the other two powerhouse performances, which are worth the ticket price alone. Now I want them to get Bruch's *Scottish Fantasy* ready for release and I'll be a very happy camper.

Morton Gould has never received the respect or status he truly deserves. Not only a fine conductor and arranger, he was an excellent composer as well. These performances come from LSC 2080, *Brass and Percussion* and LSC 2308, *Doubling in Brass*. It's all Morton Gould and his Symphonic Band and there are some very exciting pieces to be heard. I enjoy

Gould's composition, 'Parade' with the band marching

in place as well as several of the Sousa marches and the Jericho. Certainly these are very different sounding performances from the Frederick Fennell ones delivered on Mercury, but offer really interesting interpretations of well played music. The only problem for the American readers who purchase this disc, is that they will have to stand up while listening to half the selections!

And yes, I'm saving the best for last: two issues that stand head and shoulders above the rest. Not so much sonically, because these RCA issues are all sonically incredible, but for me, it's the music.

First is *Scheherazade* from LSC 2446 coupled with part of LSC 2150, Stravinsky's *Song of the Nightingale*. These are, to my way of thinking, as close to definitive readings as I could ever imagine. Certainly there are many other performances of the Rimsky-Korsakov warhorse available, but I just love the way Reiner controls and how well the Chicago plays. While there are not as many performances on LP of the Stravinsky work, this is another case where

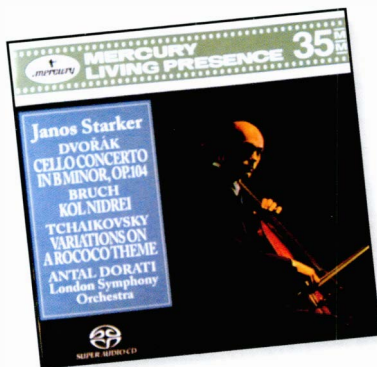




► I think Dr. Reiner gets it right. With wonderful sound, outstanding performances and great music, this disc is a winning combination. It has it all and I recommend very strongly that you own these performances. It's really hard for me to accept these were recorded in 1954, 51 years ago, and in 1960 – nearly 45 years ago. Stunning work that even the most ardent digiphobe will have to love.

Sometimes time has a habit of allowing you to forget greatness. This Berlioz *Requiem*, performed by Charles Munch, the Boston Symphony Orchestra with the New England Conservatory Chorus and the glorious voice of tenor Leopold Simoneau falls into that category for me. Originally released in the U.S. as LDS 6077, this was one of RCA's deluxe Soria editions, complete with a large LP sized booklet with hand-tinted plates. It was a glorious production and I couldn't begin to imagine what it would cost to duplicate today. I'll also admit that I was quite surprised when this was selected for release, but I can absolutely

assure you this is one spectacular two-disc set. The performance will have you in tears and Simoneau and some of the other soloists have voices that truly came from heaven. I was mesmerized when I put the first disc in and after listening to the complete performance,



started disc 1 again. It's just out of this world. I'm sure that Requiems in general are not everybody's cup of tea, but this is clearly a cut above so many. This has started my gears going again, making me wonder what else I haven't listened to in 20 years – and believe me, there is too much. The Boston players are stunning under Munch who seems to know this music like the back of his hand. One of the great performances on record ever and now you have it totally refreshed in outstanding DSD and newly down-converted CD sound. Absolutely NOT to be missed under any circumstances.

Round Two from both companies offers some great music – some, as is the way of such things, being a little greater than the rest. For the most part, I'm much happier with what I heard from Mercury on this go around, and continue to be delighted with what RCA (now Sony/BMG) is giving us. These are bargain presentations of great performances and we should all support the care and work that went into giving them new life. Given the quality of the music on offer, purchasing your favourite selections has more to do with being (satisfyingly) selfish than any act of charity.

## Mea Culpa...

In issue 40 in the Speakers Corner mini-review of the Dvorak *'cello concerto*, I mentioned that, "Others to look for might be Fournier/Szell on U.S. Epic (gold label, not UK SAX which has 'squeezed' the sound with two Strauss works on one LP)". I had a 'momentary' lapse of reason and confused the Dvorak with Strauss' *Don Quixote*. The Fournier/Szell collaboration I was referring to is on Deutsche Grammophon SLPM 138 755. My apologies for any confusion.



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BRAHMS Piano Concerto No.1. Rubinstein/Reiner. 82876663782

DVORAK / WALTON Cello Concertos. Gregor Piatigorsky, Boston Symphony Orchestra/Charles Munch. 82876663752

DVORAK Symphony No.9 SMETANA Bartered Bride Overture WEINBERGER Schwanda: Polka Et Fugue. Chicago Symphony Orchestra/Fritz Reiner. 82876663762

GERSHWIN Rhapsody in Blue, An American in Paris. Boston Pops Orchestra/Fiedler, Wild. 82876613932

GOULD Brass Et Percussion. Works by: Sousa, Jericho Goldman, Jubilee Bagley, Emmett. 82876663712

OFFENBACH Gaité Parisienne ROSSINI-RESPIGHI La boutique fantasque. Boston Pops Orchestra/Fiedler. 82876664192

RAVEL Bolero, La valse DEBUSSY Images for Orchestra. Boston Symphony Orchestra/Charles Munch. 82876663742

RIMSKY-KORSAKOV Scheherazade STRAVINSKY Song of the Nightingale. Chicago Symphony Orchestra/Fritz Reiner. 82876663772

SIBELIUS / PROKOFIEV / GLAZUNOV Violin Concertos. Jascha Heifetz, Chicago Symphony Orchestra/ Walter Hendl, Boston Symphony Orchestra/ Charles Munch, RCA Victor Symphony Orchestra/Walter Hendl. 82876663722

## Mercury Living Presence

DVORAK Cello Concerto in B minor, Op.104 BRUCH Kol Nidrei TCHAIKOVSKY Variations on a Rococo Theme, Op.33. Janos Starker, London Symphony Orchestra/Antal Dorati. 4756608

ENESCO Roumanian Rhapsody No.1, Op.11 LISZT Hungarian Rhapsodies 1-6. London Symphony Orchestra/Antal Dorati.4756185

PROKOFIEV Piano Concerto No.3, Toccata RACHMANINOV Piano Concerto No.1 SCHUMANN Variations on a Theme by Clara Wieck, etc. Byron Janis piano, Moscow Philharmonic Orchestra/Kyriil Kondrashin. 4756607

SCREAMERS Circus Marches by Goldman and others. MARCH TIME Marches by Edwin Franko Goldman Et Others Eastman Wind Ensemble/Frederick Fennell. 4756619

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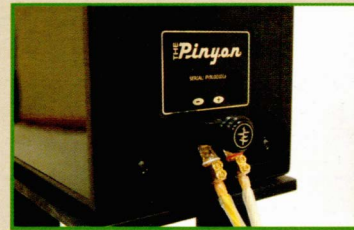


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The Cannonball Adderley Quintet in San Francisco

Analogue Productions/Riverside RLP 1157 **45**

It's a great pleasure to hear these performances 46 years after they were originally recorded. I'm a big fan of this series, and we're now into the third set of 25 Jazz titles from the Fantasy catalogue (now owned by Concord) and re-issued by Chad Kassem's Analogue Jazz Productions as 180g 45rpm releases. Issuing 45s with music on both sides makes so much more sense than single-sided releases. (Especially as they don't warp the way single-sided 45's tend to.) I love the work Steve Hoffman and Kevin Gray perform with these tapes. Masters the pair! I had to make collecting decisions many years ago and one of the areas in my collection that is weak is the jazz section. I'm not sure what an original stereo issue of this recording would set you back, but I can tell you that you won't get the sound quality and the quiet surfaces this recording offers for \$50. The musicians here are playing spontaneously at the Jazz Workshop and you've got that 'club atmosphere' going for you as well as the master players in the Quintet. Strongly recommended for those who have even the slightest interest in these outstanding musicians.

RSF



Sam Lightnin' Hopkins

Lightnin' in New York

Pure Pleasure Records/Candid Stereo 9010 **180g** **2**

Wowza. This is one GREAT album! Hopkins is right up there with the absolute greats and this gem was recorded at Nola Penthouse Studios in New York City in November, 1960. Re-cut from the original analogue master tapes by Ray Staff at Alchemy and pressed on 180g vinyl by Pallas. I've owned the original mono of this recording for well over 20 years and have always, always loved it. I think when you hear this record you'll get a good idea why I am so smitten with the blues. Hopkins weaves a wonderful story in his troubadour style and this is another record that doesn't know what the phrase 'bad track' means. Having always heard the mono issue (both the mono and stereo are impossible to find in clean, quiet issues) I was surprised in listening to the stereo that we're offered the same intimate acoustic that's also on the mono release. The sound is out of this world and you're going to try and figure out how Hopkins seems to play the guitar, the piano and sing all at the same time! For what it's worth, this Pure Pleasure release destroys the UK Barnaby issues. Starting off with 'Take it Easy', you immediately know you're in for a real tour de force. Wait until you hear 'Mister Charlie' on side 2.

Highest recommendation

RSF



Liszt: Hungarian Rhapsodies 2 & 3  
Enesco: Roumanian Rhapsodies 1 & 2.  
Dorati, LSO

Speakers Corner/Mercury SR90235 **180g** **2** **SA**

I've said it before and I'll say it again, "This is one of my favorite Mercury recordings." I find the music light, fast-paced and wonderfully infectious. You just can't help toe tapping to this one. Dorati is right at home with this music and the LSO rises to the occasion as well. The woodwinds start off slowly and then the full power of the string section brings it all together. Slowly, at first, and then the pace begins to quicken. Dramatically. The plucked strings of the cello and viola sections dominate for just a moment and then Dorati swings into high gear. This is music we've all heard at one time or another and it's absolutely delightful. As quickly as the Enesco moves into high gear *Rhapsody 1* ends and number 2 begins. A thoroughly enjoyable encounter. Side 2 brings us into the world of Liszt and here we are treated to two of his 6 *Hungarian Rhapsodies*. There is seemingly a little more pomp and circumstance as *Rhapsody No. 2* opens, however, this is soon forgotten and this light-hearted fare fills your entire room with great sound. Liszt is of course a little more serious than Enesco, but don't let that scare you. This is Classical Music for people who don't think they like Classical Music. Great music making and NOT to be missed. Those of a digital persuasion should check out the new SACD release (pp132) which adds extra Liszt *Rhapsodies*.

RSF







**Franz Schubert**  
**Symphony No. 8 (Unfinished)**  
**Symphony No. 3**  
 Carlos Kleiber, VPO

CAE/Deutsche Grammophon 2531 124  

While I am pleased Clearaudio has thrown its hat in the re-issue marketplace with the Clearaudio Audiophile Audition, I would have liked to have something more exciting in their first group of Deutsche Grammophon releases than Kleiber's Schubert. Firstly, it's not a hard record to find used. Secondly, it's far, far from being one of Kleiber's better interpretative outings. The *8th* is a little shaky in the first movement but he does settle down and draws some fine drama after this. For me he rushes through the *3rd*, almost as if he was late for another appointment. What is most surprising though is that the sound quality is only mediocre, especially the first half of the *Allegro moderato*. After that things do improve, but there's no saving that *3rd*. (Look for Karajan on EMI or even Kertesz on Decca). Still, your tastes might differ and at least the re-issue has much quieter surfaces (from Pallas) than my originals. I do hope these releases continue, but I also hope there is more creativity in the Clearaudio camp when the next group is selected.

RSF



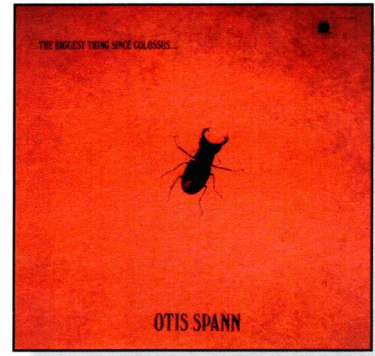
**Tchaikovsky**  
**Piano Concerto No. 1 Op. 23.**

Martha Argerich (pno) Dutoit, RPO

CAE/Deutsche Grammophon 2530 112  

Anyone who knows me is aware of my love for almost anything Argerich plays. This was her first recording with Dutoit and presumably an early encounter and collaboration of artist and conductor which eventually led to a marriage. Martha's recorded this with several different conductors and orchestras and while some may prefer her performances with Kondrashin or Abbado (and I like those also), this, being her first, is among my favourite interpretations. While the orchestras seem to lag in those other recordings, here we have one entity where the soloist and the Philharmonic are united. I really like the way Dutoit handles his baton throughout this performance, being delicate when required, but firm and powerful when the score calls for it. Martha is electrifying as always and I would strongly suggest that if you're not familiar with this performance, you're missing one of the great interpretations of this work. The sound, while more than acceptable, comes second compared to the interpretation. This is a nice addition to my re-issue collection and I'm happy to recommend this to both those who already own an original pressing and those searching for that special Tchaikovsky.

RSF



**Otis Spann with S.P. Leary**  
**and Fleetwood Mac**

The Biggest Thing Since Colossus

Pure Pleasure/Blue Horizon Records 7-63217.  

After the *Jam Sessions* at Chess studios, Spann and Fleetwood Mac decided to do another album together and this is the result. Leary's drumming is outstanding and Peter Green is probably at the peak of his guitar skills. There's a slow opening with 'My Love Depends on You', and then things really take off with 'Walkin'. This is one of those ultra rare Blue Horizon issues that's been out of print for over 30 years. The Pure Pleasure release, another Ray Staff/Alchemy/Pallas collaboration, is one spectacular bit of music making. Spann is one of the greats and he's just so into the groove and laid back, delivering stunning vocals. While there are other Otis Spann records I've preferred in the past, this disc makes a very welcome addition to the repertoire of an artist I can listen to all day long. The man can play the piano as good as Memphis Slim and that's saying something! If you're not familiar with Otis, this is a mighty find introduction into who he is and what he can do. Simply stated, he's got the blues. Great music, great feeling, great sound. Now all you have to do is get your copy. Top recommendation.

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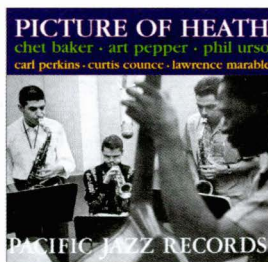


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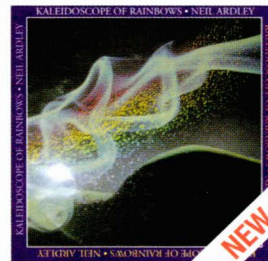
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## ADVERTISERS INDEX

Absolute Analogue	119	Definitve Audio	92	Origin Live	73
Absolute Sounds	2	Dynavector Superstereo	136	Pear Audio	118
Acoustic Sounds	32	European Circuit Solutions	106	Pinewood Music	66
Alium Audio	119	Focal JM Lab	ifc	Redline	83
Alternative Audio	113	Grass Dance	66	Ringmat	107
ART Loudspeakers	83	Guidford Audio	137	Shadow Audio Consultants	45
Audio Atmosphere	137	Hazlemere	131	Signals	137
Audio Destination	136	Heatherdale	128	Sounds of Music	112
Audio Images	137	Hifi News	4	Sendor Audio Systems Ltd	67
Audio Reference	93	Hifi News	44	Strub	112
Audio Republic Ltd	136	Hififorsale.com	113	Symmetry	15
AudioFreaks	8	Infidelity	136	Tannoy	66
Audiolincs	67	Integrated Eng. Solutions Ltd	131	The Cartridge Man	131
Audiophile Club	82	Leema Acoustics	33	The Chord Company	11
Aurum Acoustics	82	Midland Audio Exchange	128	The Sound Practice	112
B&W	obc	Musicology	73	Trichord Research Ltd	113
Border Patrol	119	Neat Acoustics	107	Tube Shop	112
Chesterfield Communications	51	Nordost	ibc	Vertex AQ	137
Cloney Audio	92	Noteworthy Audio Ltd	136	Vivante	140
Cyrus Audio	128	Oranges & Lemons	136	Walrus	14



# The California Gold Rush... Black Gold that is...

by Richard S. Foster

Having described the SACD mastering chains employed by Sound Mirror and Emil Berliner in the last issue, it's time I got to vinyl production. Whilst CD was widely predicted as the black disc's nemesis, I for one am mighty glad to see not just continued output from the specialised audiophile and re-issue labels, but increasing availability of mainstream titles too. However, maintaining any sort of output has meant the creation of a dedicated mastering and pressing infrastructure. Where there were once dozens of record pressing plants (and cutting suites), many major labels owning multiple plants, now, as close as I can figure, the US boasts a grand total of four: United in Nashville, 33 1/3, Rainbo and the quality orientated RTI.

## Record Technology

Incorporated is a major player in the International marketplace when it comes to pressing fine quality vinyl records. They also have the advantage of being the home for AcousTech Mastering – a world class mastering studio with Kevin Gray at the helm. There is no doubt about it, this is THE one-stop shopping venue for vinyl, CD/SACD mastering and just about whatever your needs may be for any musical reproduction software manufacturing. In 1994, AcousTech began as a joint venture between Don MacInnis of RTI and Chad Kassem of Acoustic Sounds. [Acous(tic Sounds)....(Record) Tech(nology Inc.)] In 1997 they added CD mastering to the chain. In 2001, the room was completely rebuilt and re-equipped and mastering engineer Kevin Gray joined the team as a third partner. The new room includes 5.1 audio monitoring and video monitoring. Dozens of High-resolution SACD titles have been mastered at AcousTech and 5.1 surround mastering will begin in the very near future.

Last year I had the opportunity, along with several members from the Phonogram mailing list, to have a tour of the facilities and later, an in depth conversation with the head of RTI, Don MacInnis himself. First, Don explained to everyone how records were made and then walked us through the process. It's difficult to over estimate the practical and quality benefits of having AcousTech in the same building as the vinyl pressing and plating facilities. From start to finish, you really only have to walk a few feet, so there is minimal handling and no shipping of lacquers required, while quality control and sonic issues are simple to keep oversight of. If you're worried about the bass on a test pressing, walk down the corridor and listen to the tape!



Don MacInnis with labels from just a few current projects.



Kevin Gray at the lathe.

I asked Don MacInnis to lead me through every stage in the process, right from the point where they receive the lacquer from Kevin Gray (or an outside cutting house). What takes place from start to finish? What is the whole process? Here's what Don had to say: "What we have to do is go through the entire process of inspection, cleaning and actually nickel electro-forming to get to the point, the ultimate point of the process, which is to make a stamper that is used for pressing vinyl. That applies,

whether it's a lacquer that has been freshly cut by Kevin in the AcousTech room here or a lacquer that has been delivered by some overnight or expedited service that could come from Hollywood or New York or some other domestic or international location.

"Normally, when material comes in from an outside supplier, especially Japan, everything is packaged in absolutely perfect condition, so we don't have too many problems with transit damage or deterioration. Firstly, ►

▶ there is a visual inspection for any type of flaws. A lacquer could have a bubble, scratch, scuff or any number of anomalies that could have been on the surface even before it was cut. Hopefully a mastering engineer will inspect a blank lacquer before he cuts it, but it's not always the case. In the audiophile world, the better the condition of the lacquer, the better the ultimate sound of the record. Notations are made if there are any problems. Then there



Lacquer pre...

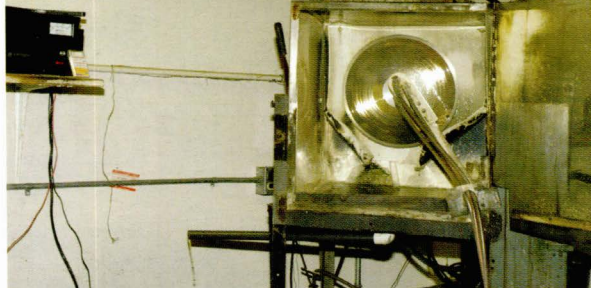
is cleaning, soaking in a special bath. After that, there is rinsing that removes any dust particles that may have come in contact with the surface as well as the removal of any residual oils from the lacquer itself that may have come to the surface from the cutting process, or any chip debris and so forth. Once it has been cleaned, the next step is to metalize the lacquer to make it conductive; this is done by spraying the modulated surface of the lacquer master disc with a silver solution. That turns the appearance of the lacquer from a 14-inch black vinyl phonograph record to metallic, almost like it were a polished nickel piece. However, it's actually a liquid silver deposit. That gives us the conductivity so that we can begin the actual electro-forming process. The term electro-forming as opposed to electro-plating is indicative of the actual process where we are building up a deposit of nickel onto the surface of the metalized lacquer disk, but with the intention of removing that deposit. We're not trying to actually plate it to make a permanent bond – we're simply forming a negative (opposite) image of the original with the intention of removing it for separate use.

“This process is done in a plating bath. The metalized disk is attached to a rack, put into the bath and an electrical current is drawn through the disk and that causes the nickel

from the plating bath to deposit (or grow) onto the surface of the lacquer, creating the negative image. We do this for a prescribed length of time and with a carefully regulated level of current to get the exact thickness we are looking for. At the end of that period, we remove the piece and separate the lacquer master from the first step of the nickel process. This we call the nickel master or the father. The father is a negative image. It's not playable. The information – the music – is on a ridge instead of a groove. We make a visual inspection of the father and if that is a pass, we go to the second step. That involves passivation.

“Passivation is a chemical process that prohibits the binding of the new nickel to the existing nickel, otherwise it would simply be a plating process where you would build up a second layer of nickel that you could not remove because it would form a permanent bond. You have the passivation of the nickel master so that when it is put back

into the bath and current is drawn on to it, the nickel deposits onto the surface of the father. It will not bond but simply form an opposite. What we are creating is an opposite of the negative. Again, we are going for a prescribed thickness of deposit and this is based upon the amount of time the current is drawn across the



...and post silver.



Separation of Father and Mother.

master in the bath at a certain temperature and a certain current. Once we get to this, we separate the two, nickel elements so that we have the original, ridged version and an opposite impression of it. This we call the nickel mother – a positive and playable disk. We can give this not only a visual inspection but an audio inspection as well. We can put that on a turntable and play it. We're not giving this a 100% audio inspection for sonic quality but rather, the technical ▶



► parameters that govern the replay process. What we do is to check the lead in, the spreads, the lead out, we spot check modulation in all the bands looking for any problems that might effect the sound. That is simply a check to see if it is fruitful to go to the next step, which is to make the stamper. The ultimate responsibility on determining the sound quality lies with our customer in their listening to the test-pressing.

“If this mother passes our inspection, we can then proceed with making a stamper, which is the same process once again. The mother needs to be passivated and put into the tank, current activated and nickel drawn onto the surface of the mother for a prescribed amount of time, etc. Once we have that, we separate the nickel mother from what will become the stamper. We’re back to a negative, an opposite image of the mother. We then give that a visual inspection and trim, form and clean that piece so that it will fit the press. Typically there are two stampers, an A and B side, which are then delivered to the press room for test pressings.”

I asked MacInnis how many fathers can he make from a lacquer. He was adamant that in the audio-ophile world, only one. “There are cases where you can make two, but again, not in the audiophile world. There is the possibility of two mothers being produced, but there are a lot of things that determine this. There are no absolutes because every job is different: how things are cut, what is the width of the grooves, where the nickel is really getting into some of the intricacies and so forth, that makes the separation of the mother from the father more difficult and can cause some damage. The separation process is very delicate and has to be done very carefully, otherwise you can damage the grooves. Programme that is very dynamic, containing wide, deep grooves with a lot of level are more difficult to separate and can become damaged much more easily.

I don’t know of a case these days, with the limited number of pressings per title, where a single lacquer properly handled throughout, wouldn’t yield enough

stampers to make tens of thousands of records if the demand was there. Certainly, in the heyday of vinyl production, one plant might have received one set of lacquers, from which they’d have made one set of fathers, several sets of mothers and from those mothers there could have created several dozen sets of stampers which would yield hundreds of thousands of records. Today, if we get an initial order of more than 5000 it is very rare.”



Lacquer, Father, Mother, Stamper (and RTI ping-pong table).



Press in action...

I asked Don if stampers have a life expectancy or ‘shelf-life’ once they have been created. He said, if stored properly and in the right climate controlled environment, “...it could run into decades.”

We’re now reached the stage where the stampers have been made, we’re putting a vinyl ‘biscuit’ on the press because we want to make some test pressings. What happens next? “We treat the inspection of the test- pressing in a similar way to the one we do on the mother; it gets visual inspection and spot-check audio inspection to show up any obvious problems. We’re not giving it a 100% inspection as this is the prerogative of our customer who knows exactly what it should sound like. In the test-pressing stage we are not trying to make a perfect vinyl pressing. We’re trying to give the customer something they

can evaluate for sound quality. In most cases we’re going to give them physically a very good product, but as yet the presses aren’t optimized. Temperature dial in for production is not something we do at this stage as it’s simply not worthwhile until the customer approves the product.

“Once the test pressing has been checked by us, not only in audio terms but also as a physically molded disk to make sure that it is completely flat and properly filled and isn’t warped (we don’t attempt to make the test pressing physically perfect and our customers understand this) the customer listens and decides whether or not it is approved. The next step depends on the size of the order; we may have to make an additional stamper or two for each side. We do this ►

▶ especially on 180g pressings. We like to have a set of stampers for every 1000 records. We determine how many sets we need (and bear in mind that a stamper might fail, we don't want to stop the run and start all over making fresh stampers, test-pressings etc). We're now ready to start the preliminary run, before producing the manufactured quantity. The pressman takes the stampers and mounts them onto the press. Then he'll begin to cycle the presses and stamp out records – these are still white labels. The pressman attempts to adjust and dial in the press to make a properly molded vinyl record. You have to



You want colour...

adjust the temperature of the extrusion (the heating of the vinyl). When the vinyl is extruded it comes out at possibly anywhere between 275° and 300° Fahrenheit, depending upon what the machine is set at. It forms this biscuit and the biscuit temperature is very important depending on what we're trying to press – whether it's 120g, 180g or 200g, these all require different biscuit temperatures. Also, depending upon the particular job, there is going to be a different groove structure, groove appearance, groove depth, groove width and to get that properly molded (ie, filled properly) will also take an adjustment in the biscuit temperature. A non-fill issue will typically look like an oval shaped patch of an inch and a half, and it will look as if salt was poured there; it will appear like little tiny white dots. Every time the stylus passes over this, you would hear a scratching noise. This is a temperature-controlled issue.

“Once we've zeroed in on the optimum temperature for the biscuit, it is put onto the press, the press closes and the stampers mold this vinyl mass into the disc. Now all we have to do is get it out in one piece! (He laughs) That's the separation process. There is a cooling process before the press opens; water is pumped into the clamping surface that holds the stamper. This causes the stamper to cool and in turn cools the

vinyl. The timing of this is critical. You don't want to cool it for too long a period because it will not release properly, tearing surface material away from the disc. That creates a problem called stitching. Stitching appears as a thread in a circular pattern along the groove and that too will play in a scratchy manner once each revolution. There are also other molding defects that can occur based upon the quality of the material used. It could be noisy and of course this would effect the entire run of records, not just a few. The pressman has to attempt to make the best quality molded piece he can and then, when he's satisfied he's got it, he takes the discs into the quality control department. Another individual gives the disc a visual inspection, a tracking test, a test for concentricity using a stereo-microscope and also an audio test to listen to the vinyl for any flaws. Again, this is spot-checking, based upon the assumption that if the mother was good and the stamper was good and the test pressing was good... We're just going to spot-check the final product. If the quality control department says okay this is good, the pressman can go back and put the

proper labels of the job on the presses and start counting the actual run.

“The white label pressings that have been made to get to this point are then ground up and reused for other projects.”

The time that I (and the other Phono-grammers) spent at RTI in Camarillo was a real eye-opener.



Steve Hoffman talks stampers.

The wonderfully informative tour was accompanied by lunch, demonstrating that Don was as generous with his hospitality as he was with his time. We also had the additional treat of spending quality time with Kevin Gray in the AcousTech mastering suite (which sounded absolutely superb). By sheer chance, and just to cap a perfect day, Steve Hoffman dropped in and we were treated to a lesson from these two masters. We have been sworn to secrecy as Steve finally showed us one of his trade secrets, “The breath of life” he calls it. Sssssshhhh, Steve, I promise I won't tell. Besides, the mastering process I'll be getting to next time, when Kai Seemann of Speakers Corner and Willem Makkee (who cuts the superb Mercury re-issues for SCR) will also enter the equation. Meanwhile, if this has whetted your appetite for further information and background, visit the RTI website where you'll discover a plethora of fascinating information.

<http://www.recordtech.com>







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