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Exclusive -
Michell's TecnoDec turntable

• £600-£1000 bookshelf 'speaker group test
• Pro-ject Pre & Power Box amplifiers
• Monitor Audio B2 speakers

• Tannoy ST50 SuperTweeters
• Living Voice Avatar OBX-R 'speakers
• Pioneer/Townshend Audio DV747 universal DVD player
• Linn 2250 amplifier

Competition
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Computer Audio World
• VideoLogic ZXR-200 multimedia speakers
• SONICblue RioVolt SP150
• Philips Sonic Edge 5.1 soundcard

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Meridian is the leader in high-end CD playback. Since we revolutionised the performance expectations of CD with the MCD-pro in 1984 we have steadily advanced the art of digital audio. Our reputation in the field is further confirmed by the choice of MLP (Meridian Lossless Packing) as the mandated standard for DVD-Audio.

The New Meridian 507 CD Player features 192kHz 24-bit DACs for outstanding performance and the very latest laser assembly optimised for CD, CD-R, and CD-RW. It comes packed with the Meridian MSR System remote.
Afer almost five years on the magazine it's time for me to lay down the editor's quill. Deciding what to put in your final 'ed intro' is a bit like deciding what to have for your last meal after five years on Death Row! Not that it's been like being on Death Row - unless the USA's high security prisoners get to travel the world and listen to the best sounds!

As I pack my knapsack and wander purposefully into the civilian wilderness, I can reflect on a superb time during my tenure. We often have to deal with head-scratching advanced technology that takes the job well out of the audio sphere, but many manufacturers and fellow hacks have a deep knowledge and love of music above technology. But so do our readers. Log on to any of the various manufacturer or web magazine forums and follow a strain about who recorded the definitive Bruckner Eight and you'll see what I mean.

The five years I've spent on the magazine have perhaps seen the start of the end of hi-fi as we know it, with the emergence of AV, although specialist two channel music is still going strong. What got me into all this in the first place was music, and whilst, yes, music is still the essential key to the rise of DVD-A, for example, some of the 'sit and listen' mystique has been irreparably taken away by lobbing a TV into the equation. Even the strongest advocates of multichannel would have to admit this. So where do I fit in among it all?

The one question you'll all want to ask is, after all I've listened to, what will I choose for listening to my music collection? Well, coming from a classical music background, but with a love of Rock and Dance too - I'm not that old - a pair of Quad 988 electrostatics found their way into my Papal residence some time ago. These unique beasts are subtly underpinned, as it were, by a REL subwoofer, a Meridian 507 CD player and 1 can start enjoying it again. Where's that Carpenters album?

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All the latest news and views from the world of computer audio.

Onkyo's brand new TX-NR900 receiver is one its most complete exponents to date, reckons David Price.

David Price experiences the new Philips PSC605 Sonic Edge 5.1 soundcard.

The new RioVolt SP150 is SONICblue's answer to the rapidly growing CD-based MP3 portables market. David Price is neither shocked nor stunned.

David Price tries out VideoLogic's new ZXR-200 multimedia speakers.

This month you can win the wonderful Michell TecnoDec turntable, a brand new model to bring LP into the 21st century no less!
TANNOY'S NEW DUALS

Tannoy have announced details of a brand new range of mid-price speakers. The Sensys range will cover a price area of £200-£650 and the models at the top of the range will feature a brand new and re-engineered version of the classic Tannoy dual-concentric drive unit. In addition, the range encompasses the company's Wideband technology in the shape of their SuperTweeter, which reaches frequencies in excess of 50kHz - ideal for DVD-A and SACD.

The entry level product is the Sensys 1 bookshelf which uses a standard 175mm mid/bass driver along with a Wideband tweeter. There is also a Sensys 2 floorstander which uses two of the same mid/bass units. The next level bookshelf is the Sensys DC1 which features a dual concentric drive unit partnered with a Wideband tweeter placed on top of the cabinet in a dedicated pod unit. The DC2 floorstander features a 175 standard drive unit that accompanies the dual concentric on the front baffle; the tweeter again sits in a pod. There are also two centre models in the range, one dual concentric and one standard, as well as the Sensys R rear speaker that features an inverted drive unit configuration.

NAD SPEAKS OUT!

NAD has announced details of its new range of compact loudspeakers. There are two main channel and two centre channel designs and each speaker has been engineered for mix-and-match compatibility so that in various combinations they can compose either a music system or home cinema system, fulfilling a wide range of needs. The smaller NAD 810 range and the NAD 820 range (which offers enhanced bass extension and dynamics) are in a wood grain finish and feature aluminium dome tweeters for the main left/right models. The 810 mini monitors are £145 per pair with the larger 820 bookshelf model at £200 per pair. The two centres are priced at £130 (810C) and £150 (820C) and the 800SW subwoofer is £250.
HIGHLY DISTINCTIVE

After recently concentrating on AV, TEAC has announced details of its brand new Distinction Series of hi-fi products. These consist of the C-1D CD player (£239.95), the A-1D integrated amplifier (£279.95) and the T-1D FM/AM tuner (£199.95). Also, in a break from recent tradition, the products are full-size components and the range has been engineered and tuned to provide audiophile levels of sound quality. Like the reference 500 mini-system, the Distinction Series will introduce matching new technology components as they emerge; there is a PC compatible touch screen remote available for the range. Extensive use of quality internal components is matched by the external use of sleek aluminium front panels, stylishly finished in the TEAC tradition.

TEAC UK Ltd.
Tel: 01923 819630
www.teac.co.uk

IDEAL TO A T!

Audio-T are set to demonstrate what they can bring to the modern day living environment as they exhibit at the 2003 Ideal Home Exhibition from the 12th March-16th April at Earl’s Court. The company can be found at stand 224a and will be showing new technologies to the public, such as plasma and LCD TVs, touch screen controllers and multi-room audio systems. Audio T will feature five systems installed in a variety of situations, environments and prices. Names on demonstration will be, among others, Acousic

CREEK’S LATEST SPIN

UK specialists Creek Audio are set to release a new midprice CD player. The CD 50 is evolved from the CD43 Mk2 and is styled the same as the recent 53 series of products with a solid aluminium front panel. Inside the chassis is a Philips CDM12 transport with a CD7 chipset. Custom Creek software controls the mechanism and display functions and a 24/96 DAC is used. The DAC, master clock generator and jitter reduction circuitry each sit on a separate removable and replaceable circuit board which makes the CD50 ideal for future upgrading. The CD50 is priced at £699 and is available now.

In addition to the CD50, Creek have replaced the OBH-11 headphone amp with two new models. The OBH-21 and 21SE use more advanced circuitry and feature a 50% larger chassis than their predecessor, fitted with an aluminium front panel. Two quarter-inch headphone jacks feature on both models and the SE version uses higher grade components throughout for improved sound quality. It also features two pairs of stereo Phono sockets (RCA jacks) on the rear panel for input from any line level source and chain linking to another product in a tape loop circuit. Prices are £150 for the OBH-12 and £250 for the SE version.

Creek Audio
Tel: 01442 260146
www.creekaudio.co.uk

www.audio-t.co.uk

Here’s a little taster of what we hope to bring you in May’s issue

TOSHIBA SD520 DVD-A PLAYER
This is the slick new budget DVD-A player from the Japanese manufacturer and at just £300 it could be a landmark product

MIRAGE OM-7 LOUDSPEAKERS
These superbly built floorstanders offer a lot for the money, but will they match the strong competition? Find out in the next issue

HEART CD6000 CD PLAYER
Heart hail from China and this is their valve modified CD player which promises to impress on many levels.
Put The Needle
On The Record
And The Drum Beat
Goes Like This

Pro-ject,

stunning record playing systems from £115

Distributors: Henley Designs Ltd, 01235 511166
www.henleydesigns.co.uk, e-mail: info@henleydesigns.co.uk

The following dealers have been chosen for their exceptionally high standards in customer service, staff training and demonstration facilities.

We recommend them wholeheartedly.

Scotland / Ireland / Wales

Glasgow - Glasgow Audio 0141 332 4707
Edinburgh - Hifi Corner 0131 5567901
Edinburgh - Russ Andrews 0131 557 1672
Aberdeen - Sevenoaks HiFi 01224 567070
N Ireland - Kronos HiFi (Dungannon) 02887 753606
Cardiff - Sevenoaks HiFi 0292 0472899
Swansea - Sevenoaks HiFi 01792 465777

North East

Hull - Sevenoaks HiFi 01482 587171
Newcastle - Linton Audio 0191 460 9999
Newcastle - Global HiFi 0191 230 3600

North West

Darlington - Pro-ject Experience 01325 481418
Doncaster - The HiFi Studios 01302 727274
Preston - Sevenoaks HiFi 01772 82577
Manchester - Sevenoaks HiFi 0161 831 7969
Manchester - Practical HiFi 0161 828 8689
Sheffield - Moorgate Acoustics 0114 275 6048
Castleford - Eric Wiley 01977 556774
Leeds - Sevenoaks HiFi 0113 245 2775
Huddersfileld - Huddersfield HiFi 01484 544668
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Bedford - Richards Audio 01234 365165
Doncaster - Techniscand 01582 663297
Peterborough - Sevenoaks HiFi 01733 897697
Cambridge - The Audiophile 01223 368305
Leicester - Lecester HiFi 0116 2339753
Nottingham - Sevenoaks HiFi 0115 911 2121
Ashby De-La-Zouch - Zouch audio 01530 414128
Lincoln - Sevenoaks HiFi 01522 527397
Leamington Spa - Stratford HiFi 01926 886644
Walsall - Sound Centre 01922 459126
Salford - Music Makers 0121 742 0254
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Kiddersminster - Midland Audio 01562 822236

London

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New Malden - Unit 0208 942 9567
East Sheen - Choice HiFi 0208 392 1959

South East

Maidenhead - Audio Venue 01628 623995
Reading - Audio T 0118 958 5463
Reading - B & R HiFi 0118 958 3230
Newbury - B & K HiFi 01635 624744
Crawley - Sounds Perfection 01236 221372
Exeter - Sevenoaks HiFi 01392 218895
Oxford - Oxford Audio 01865 790879
Bristol - Audio Excellence 0117 966 4975
Bristol - Radford HiFi 0117 924 0787
Yeovil - Mike Harding UY113 417361
Tiverton - Audio Destination 01884 243584
Southampton - Phase Three 0238 022 9834
Salisbury - Salisbury HiFi 01722 322169
Basingstoke - Audio T 01256 322311

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Heathcote - David Orton Audio 01663 452448
Banham (Kent) Progressive Audio - 01634 389004
Ipswich - Sevenoaks HI FI 01473 289077
Norwich - Sevenoaks HiFi 01603 767605
Worthing - Phase Three 01903 245577

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Worthing - Phase Three 01903 245577
Do today's small loudspeakers give a big enough sound to make floor standers unnecessary? Noel Keywood reviews six potential candidates.

Big loudspeakers can dominate a small room and even look imposing — perhaps too imposing — in a large room, especially when others around you might fancy using that valuable piece of floor space for furniture or toys. So do you get a high quality miniature? There are plenty on the market and not all of them are wooden boxes. We gathered in six very different candidates for this group test to see how various approaches, including differing cabinet styles, measure up in every way to the task of providing high quality sound from a small cabinet.

Immutable laws of physics, rather than design skills, determine how much bass depth and power comes from a cabinet of any particular size, so small speakers cannot produce really deep bass of either power or quality. Luckily, most musical instruments reach down to 40Hz and lower and it is possible to get this from a large-ish shelf mounter nowadays. But our tests show that small shelf mounters struggle to produce the 40-80Hz bass octave, which is where bass power lies. So don't expect miracles from minis.

There's more to loudspeakers than just bass of course and to quite some extent high quality miniatures like the Rogers LS3/5a and its equivalents have traditionally had a clear run in the past by capitalising upon properties such as accuracy and low colouration. Times change though and these days small, inexpensive loudspeakers like the Wharfedale Diamond and Mission 780 miniatures set a cracking pace, with people like Mordaunt Short providing dynamite competition with models like the superb 912s I reviewed recently. By providing high quality from small cabinets, with low price included, they make it far more difficult for expensive miniatures to justify their existence nowadays.

That said we have a brand new model from KEF in this group, the XQ One, that is small but costs no less that £999 (inc.VAT). Phew! Designed to open a window on the wide bandwidth and dynamic range of DVD-A and SACD, can it give a better sound by doing so? After all, in the past miniatures just had to cope with CD, which offered no increase in performance over LP, so they weren't overstretched. Now, there's a new avenue of development that is far more challenging: high definition digital.

In DVD-A and SACD we have a music carrier that, even in two-channel mode, has considerably more bandwidth and dynamic range than LP or CD. Leveraging this ability, can the brand new hi-tech. XQ One blow trad. stereo 'speakers into the weeds? It's an interesting question, raised by this fascinating new design from one of Britain's most illustrious loudspeaker manufacturers. Or do more traditional designs still cut it?
**AUDIOVOX A3**

The cabinetwork of the A3s was unimpressive, crudely routed cutouts for the drive units showing rough edges and surface stain penetration, or lack thereof. On one cabinet the veneer had chipped off from a narrow bridge between port and bass driver, probably during routing, and it had been stuck on again, showing quite obvious signs of damage.

The front baffles come without means of attachment; if you want to fix them then some sticky pads supplied have to be used.

Perhaps ours were reviewer specials using reject cabinets. If not the A3s would not fare well in a showroom; they just don’t reach current or acceptable standards.

Audiovox claim to make their own drive units, fitting a treated paper bass driver and a silk dome tweeter to the A3. The standard of finish of each was unimpressive; it has been a long time since I’ve seen cone mounted connecting tags. These disappeared in the 1970s when laser interferometry showed they produced asymmetric cone movement.

At the rear the small A3s have single-wire terminals that accept 4mm plugs axially or radially, as well as bare wire.

**SOUND QUALITY**

In spite of poor finish and a mediocre measured performance, the A3s had some sonic merit. They sound very clean, quite lively and dynamic across the midband, handling vocals very well. Harmonies from Things She Said were cleanly portrayed, crisp imaging helping establish a nice, clear sound stage across which the members of Toy Matinee were clearly positioned.

However, a DVD-A like this carries clean, taut bass and the A3s predictably managed to convey little of it. Their small bass peak likely helps towards their sense of general liveliness and enthusiasm at the bottom end of the musical scale, but proper bass was missing.

It was on less than perfectly balanced recordings, like Toni Braxton’s He Wasn’t Man Enough that had the A3s sounding glassy bright and hard, as well as unable to reproduce bass dynamics. Their strong sense of clarity and control was a bonus though and some listeners may well feel other properties are worth sacrificing for such a tidy, dry sound, totally free from box boom and low on colouration too. A Radio 4 play, where speech was untinged by colouration emphasised this characteristic of the A3s.

With classical recordings, like Beethoven’s Eroica on DVD-A this loudspeaker’s emphasised treble brought a coarseness that had violins sounding harsh. Otherwise, the A3s again managed to discern individual orchestral sections with some ability, but there wasn’t the sense of atmosphere that modern high technology ‘speakers like the KEFs can find within high resolution DVD-A and SACD discs.

The A3s have some sonic merit, but as a package they really cannot justify either their price or a place in today’s marketplace where much more ability than this is available.

**Audiovox A3 £750**

Eminent Audio
Shropshire WV15 6BX
Tel: +44 (0)781 3622315
www.bluenote.it

**MEASURED PERFORMANCE**

The Audiovox A3 has an uneven frequency response across the audio band, as expected from treated paper with surface coil terminations. The tweeter peaks up at 16kHz and will sound fierce, the pink noise test signal suggested. Unevenness in the midband suggests colouration.

The bass driver reaches down to 80Hz before output falls away steeply. The ports are tuned to 95Hz – a very high figure – but have little damping effect upon the bass driver our impedance analysis shows. This is almost an infinite baffle design. Bass will be light since there’s little downward extension, but a small amount of peaking will add some life to the bottom end.

The A3 has a high measured impedance of 9.5ohms yet is quite sensitive, producing 86dB SPL from one nominal watt. As a load it is fairly easy, although a sudden impedance change at 5kHz means it is reactive at high frequencies.

The A3 will sound dry, coarse, fierce in the treble and bass light. Technically, it is none too advanced, although some may like such a sound. NK

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W 300mm, H 190mm, D 190mm, weight 5.6kg.
DALI ROYAL MENUET II

The Dali Royal Menuets really are small loudspeakers. They would easily fit any bookshelf, although a rear port means at least an inch or so of rear clearance is needed, but a firm 8in shelf would do nicely and that, for many people might make them just the ticket – if they deliver good sound quality that is. There's no doubt the little Royal Menuets could be squeezed in just about anywhere. Ours would always stand out, except in a room painted blue, but Cherry, black and white painted finishes are available. Ours had clean edges and a deep lacquer sheen.

The black drive units are neatly inset on the front baffle and comprise a soft dome tweeter and a small synthetic coned bass/midrange unit, a normal enough arrangement these days. For those who don't want to see the drivers simple black grilles are provided.

The rear panel carries a useful set of bi-wire terminals able to accept 4mm plugs coaxially or bare wires (or plugs) radially. Links are provided for single wiring, as normal. A small port exits just above this connection panel.

SOUND QUALITY

Tina Turner’s Break Every Rule showed the Royal Menuets are enthusiastic miniatures, handling the striding bass line with some verve and ability. Really small cabinets of these dimensions inevitably attenuate bass a little and the Royal Menuets were a trifle light in this area, lacking fundamental power, yet at the same time the bass they had was of good quality.

Tina Turner's vocals came across well, due to good imaging and lack of colouration, and the speakers showed a generally strong sense of insight and tidiness when stressed with muscular Rock like this, even at some level.

Toy Matinee's Last Plane Out on DVD-A with similar aplomb. The apparent power of their delivery belies their size. Bass was firm and fluid, the strong bass line behind this track coming across well. Drums had impact and the complex vocal harmonies were nicely set up in a wide stage between the 'speakers.

These loudspeakers have the ability to mine a lot of detail from a performance, finding atmosphere and location where others see little more than the primary instruments and vocalists. The Royal Menuets were cohesive and clear, but they do audibly emphasise high frequencies, which adds a little tinsel to the top. Wagner's Reini from the London Philharmonia had violins sounding both well lit and vibrant. Trombones had a convincing rasp and bassoons were full and woody. Again, the Royal Menuets were able to mine the full character behind an instrument, giving it both timbre and body. These are high quality miniatures with a great set of abilities.

Dali Royal Menuet II £600

FBI Distribution
Hull HUI 3TD
Tel: +44 (0)1482 212213
www.dali.dk

MEASURED PERFORMANCE

The small Dali Royal Menuet II has a frequency response that extends from 63Hz fairly smoothly right up to 20kHz, our analysis shows. With no crossover suckout and rising treble the Menuet II will sound bright, but also detailed.

A fairly well damped bass end that rolls off at 63Hz is about as expected from a box of this small size and suggests near-wall mounting is expected. The port is tuned to 63Hz so this 'speaker will have fast bass, rather than deep bass – but then, really small cabinets like this one don't go low.

A low nominal impedance that measured out at 4.7ohms helps keep sensitivity high at 85.5dB – good for such a small 'speaker. To minimise impedance swings and phase changes the Royal Menuet uses as 4ohm bass unit and tweeter, giving it a smooth, even impedance plot. It is a fair load for an amplifier, drawing current, but with little reactance at high frequencies.

The Royal Menuet II is a neatly engineered, conventional loudspeaker that will sound dry and bright. NK

W 257mm, H 156mm, D 185mm, weight 4kg

A clean, dynamic sound that's also cohesive and generally revealing, the little Royal Menuet is an impressive miniature. Light on bass though and with strong treble.
KEF XQ ONE

The XQ One is a small 'speaker that isn't really so small. Visually it is conspicuous, but then this is a technically sophisticated 'speaker whose style idiom is no bluff.

The main Uni-Q driver has a bass/midrange cone, at the centre of which lies an aluminium dome tweeter. A titanium hypertweeter on top extends response, KEF claim, right up to 55kHz to capitalise on the wide bandwidth of DVD-A and SACD.

The XQ One is slickly finished, but all panels are curved, including the base. As a result it must either sit on spikes, which have a large footprint and wouldn't fit many shelves, or dedicated KEF stands.

The rear panel carries bi-wire terminals with single wire links. Plastic plugs must be eased out before coaxial 4mm plugs can be inserted axially.

SOUND QUALITY
With a 24/96 recording on DVD of Rebecca Pidgeon's Fear a Bhata her voice was not only projected with vivid clarity, but also with a cohesive believability well beyond the other loudspeakers in this test.

Strings of the Berliner Staatskapelle were vividly clear and, to my surprise, sweet sounding too, from a DVD-A where - until the XQ Ones - I had found strings to sound edgy. Imparting a sense of orchestral scale wasn't a problem for these 'speakers; they are drum tight yet full bodied too, a rare combination. Beethoven's Eroica was delivered with a level of fidelity that was beyond question, unless you prefer a 'darker' picture of things, such as that from carbon fibre.

No other loudspeaker in this group could deliver Renee Fleming with such startling realism, every fine nuance of her vocal insinuations being conveyed with almost embarrassing clarity.

The XQ Ones have no difficulty with Rock either. The initial drum strike on Angelique Kidjo's Agolo these 'speakers captured nicely, unlike the others ~ Neat Petites excluded. However, the walking bass line had more bass bounce than real depth, but this did help toward a fast and enthusiastic bass line that firmly underpinned the track, keeping a tight rein on tempo.

That the XQ Ones go low but are tuned to play upper bass (40Hz and above) was demonstrated by the strength of the major chords, bringing the might of this organ into the room. Impressive.

The XQ Ones are a vividly modern loudspeaker that, in every area, are deeply impressive.

KEF XQ One £999
KEF Audio (UK)
Kent ME15 6QP
Tel: +44 (0)1622 672261
www.kef.co.uk

MEASURED PERFORMANCE

This 'speaker covers the full audio range and it shows very little variation from flatness. Large standmounters get down to 40Hz with some ease these days, including the XQ One. The port reaches down to 30Hz so there's a little more available extension from this source, although KEF tune it high, to around 45Hz our impedance plot shows. This should make the XQ One sound weighty but fairly fast.

At high frequencies there's no crossover suckout and treble extends flat to 20kHz, so the speaker will sound quite bright and certainly well detailed. The Uni-Q driver images well and strong treble reinforces this property.

The XQ One is loud, producing a high 88dB SPL from one nominal watt (2.84V) of input. However, nominal impedance measures a low 5ohms, and not all amplifiers will like its violent impedance and phase changes. As a load the XQ One is not easy.

This is quite obviously a quality stand mounter with a lot of ability, but it needs a good amplifier.

NK

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W 418mm, H 231mm, D 308mm, weight 9.2kg

World Verdict

An incredibly impressive loudspeaker that is fast, tight and very, very revealing. It has solid and powerful bass too. Strong treble gives it a bright character.
NEAT PETITE 3

The Neat Petite 3 is a well finished loudspeaker, quite simple in appearance, with a pleasant light wood veneer and bevelled cabinet edges. The treated paper bass/midrange unit is bigger than many in a cabinet of this size, being fitted with a 14cm diameter cone (nominally 6in). It is reflex loaded, a small port being sited on the rear panel, along with bi-wire terminals able to accept 4mm banana plugs or bare wires.

Above the bass unit sits a novel EMIT ribbon tweeter with a coil etched onto its front radiating surface, to minimise moving mass, optimise transient performance and reduce coil-to-dome coupling problems.

SOUND QUALITY

With Eric Clapton placed clearly at left and B.B. King at right, acoustic bass sounding firm and large in the background, the Petites showed they have a big, generous and detailed sound suitable for Rock from DVD-A.

The tweeter is a good one and Neat's surface wave acoustic treatment around it seemed to be doing its job, since the Petite 3s imaged clearly and unequivocally, instruments and vocals sounding tightly located.

Radio 4 speech had earlier revealed a little cuppiness and congestion from the large coned bass driver, but this was small and didn't intrude.

Similarly, Larisa Stow's rich intonations weren't lost through these loudspeakers and their grip on tempo was tight. Drums sound very taut and believably powerful; the unusually broad and effective bass damping shown up by tests on the Petite could clearly be heard in practice – these speakers deliver the sort of tight bass a lot of listeners crave, although they don't have the power of big floorstanders.

With the organ of the Basilica of Saint-Sernin the Petites did an impressive job of resolving this instrument's rich tones as it glided ethereally through Cesar Franck's Choral No2, even managing to reproduce the 16ft Contrebass (32Hz) if not the 32ft Principal pipe. Most 'speakers can't manage 16Hz so the Petites omission was nothing unusual.

Bassoons of the London Symphony Orchestra sounded rich and fruity in their accompaniment to Ashkenazy playing Rachmaninov's Piano Concerto No 4 and, most of the time, strings sounded natural enough. The tweeter has its metallic moments and on occasion it sounds a little hard and bright. The general impression though is of timbral richness from the instruments of an orchestra, backed with power and scale.

The Petite 3 has a likable sound with some rare properties. It is strong in all areas and exceptional in some. This is an interesting product.

NEAT Petite 3 £845
NEAT Acoustics
Durham DL12 8UJ
Tel: +44 (0)1833 631021
www.neat.co.uk

MEASURED PERFORMANCE

NEAT's Petite 3 has some unusual characteristics. Bass output is very well damped by the port, the impedance plot shows. This gives rise to a broad, flat port output, the corollary to good damping and the port goes very low - right down to 20Hz. I would expect tight, deep bass. This may be modified by a bass peak at 100Hz, likely to add speed and perhaps colouration too.

Over the rest of the audio band the Petite looks a little lumpy in its response, suggesting colouration of some sort, but it gets up to 20kHz strongly, without any dips. As a result it should sound quite bright and detailed too. The unusual EMIT ribbon tweeter has a little peakiness so its contribution may be audible at times.

An impedance of 7ohms makes this a true 8ohm 'speaker in effect, mainly because it uses a 6ohm bass driver. Sensitivity of 86dB is healthy in spite of this, so the Petite is a reasonably easy load and will match a wide variety of amplifiers.

NK
W 300mm, H 200mm, D 180mm, weight 6kg

World Verdict

The Petite 3 has a set of strengths that set it apart. Drum-tight bass that goes deep, a revealing midband and fast treble make it a fast and exciting rocker.
Cyrus' legendary amplifiers have evolved!

Back in 2001, Cyrus began a project to evolve our integrated amplifier designs to incorporate technologies researched over the last five years. After many months of acoustic tuning and detailed electrical re-evaluation lasting more than a year, we are proud to announce the arrival of our evolutionary new Cyrus 8.

This extraordinary amplifier sets new standards and strengthens Cyrus' position at the leading edge of what's possible in audio design today.

For the full story on how our amplifiers have evolved, please visit our website at www.cyrusaudio.com.
OPERA OPERETTA

Crafted in Italy from solid Mahogany of a light hue, the Operettas feel robust and look good. The cabinets are not only rigid, but angular and well hewn to have some visual interest. Detailing is good, the drive units being inset cleanly into a silky smooth front baffle. Opera supply black cloth grilles which clip on and, with or without them, the Operettas look pretty enough, albeit traditional.

Although Opera seem to think, on their website at least, that this loudspeaker's port is front mounted, enabling the Operetta to be mounted “directly to the wall”, in fact it is rear mounted, so some space is needed. Also on the rear is a sizeable pair of gold plated terminals that allow single or bi-wiring, with bare wires or 4mm plugs as termination.

The bass unit has a clear Neoflex polymer cone and it works in conjunction with a silk dome tweeter, making this a reflex loaded two-way design, like most these days.

SOUND QUALITY

Although Opera claim their ‘speakers have an Italian sound, it certainly isn’t the same Italian sound as the Audiovox A3s, that’s for sure. I was met with a supremely soft, mellow sound from the Operettas, distinctively so in fact. Where the A3s had painted a hard, dry and brightly lit picture of Toni Braxton, the Operettas gave her a soft, warm delivery, set further back on the sound stage; it was quite a shock to go from one to the other. The truth, I feel, lies somewhere in-between: she has deep and quite rich vocal tones, but the recording has some edginess the Operettas glossed over.

They were also very keen to insert a strong bass line, at times sounding a little too keen perhaps. Quite a strong box boom coloured what was slightly loose but fulsome bass. These are not tight sounding loudspeakers, but mellow and a little floppy down at the bottom end. Imaging was not strong but the Operettas gave an easy, quite well detailed and supremely smooth rendition of Toni Braxton’s vocals, accompanied by convincingly strong, if not too tuneful bass.

Fleetwood Mac’s Go Your Own Way on DVD-A gave much the same picture, with a relaxed sense of pace and easy dynamics giving a smooth if slightly uninvolving delivery.

Turning to the classics and Ashkenazy playing Rachmaninov’s Piano Concerto No 2 revealed the Operetta’s real forte: orchestra. Violins swept in easily and majestically, piano sounded large, resonant and timbrally rich. I detected a slight flattening of dynamics though and noticed again that the powerful Musical Fidelity amplifier had quite a time getting the Operettas to go loud.

The Operettas are silky smooth and easy going. Arguably, they suit classical music better than Rock, but they make a good case for themselves with both, for those with refined tastes.

Opera Operetta £ 900

UKD
Bucks SL0 9DA
Tel: +44 (0)1753 652669
www.operaloudspeakers.com

MEASURED PERFORMANCE

Opera have opted to make this a nominally 8ohm loudspeaker, but it measures out at 9ohms. With little impedance variation it is an easy, unreactive load. The downside to this is that the Operetta is insensitive, producing just 82dB SPL for one nominal watt of input. It needs an amp with voltage swing (i.e. high specified power output) to go loud and it will take a good twist of the volume control for this to happen.

This apart, the Operetta turns in a neat and conventional performance, with smooth extended treble set just a little lower – a few dB – than the midrange to give a slightly less sharp sound than is so often the case nowadays. It should be well detailed though, since there’s plenty of treble energy. Opera use good drive units; each has a very smooth response, giving a silky sound.

Bass output extends down to 50Hz before rolling away and the port helps out a little, although not so much since it is tuned narrow and high. I would expect bass to have some bloom to it.

NK

W 295mm, H 160mm, D 330mm, weight 12kg

World Verdict

Soft, smooth and easy to listen too, the Operas are refined. However, they need a lot power.
VIENNA WEBERN

The Webern is intriguing to look at and it is very well made too. The cabinet feels solid and well hewn, and mechanical detailing is first rate. If you don’t like the alloy fronts, black cloth grilles can be attached.

Wall brackets or bases are available. Henley Designs, who import Vienna Acoustics products, price the Webern individually; they don’t come in pairs. The implication is that you may want from two to five in a surround-sound system.

The Webern is an infinite baffle design (i.e. sealed box), so there is no port and Vienna Acoustics suggest it should be placed close to a wall. The cabinets can be mounted either way up, putting the asymmetrically placed tweeter on inside or outside. Normally, for best imaging, it should be on the inside to minimise surface wave interference.

Two bass units offer plenty of cone area for bass and the single tweeter sits between them in a D’Appolito arrangement. Single wire terminals are fitted, capable of accepting 4m banana plugs.

SOUND QUALITY

Radio speech immediately highlighted the fact that the Webern basically offers a smooth, slightly warm balance. The ear hears its upper midrange dip, and the tweeter’s top end peaking went largely unnoticed, except for a little ‘hiss’ now and then.

Janis Joplin’s Cry Baby showed the Weberns to be fairly enthusiastic performers, drums and Hammond organ coming across as well embodied, lively and dynamic. There was a slightly clothy colouration though, which I would guess was caused either by ‘cabinet return’ or internal damping intended to minimise it. This is a difficulty with shallow cabinets, which is why they are uncommon.

As measurement suggested, the Weberns do not have deep bass. The strong walking bass line of Angelique Kidjo’s Houngbati came over as upper harmonics only; fundamental energy, or real bass power, hardly existed. The cabinet complained a little at this sort of thing, yet the Weberns went on to handle the next track, Idje-Idje, beautifully. Angelique Kidjo’s vocals hanging between the speakers, clear as a bell, well balanced and totally believable. With her backing singers forming a sweetly painted and nicely clear panorama of sound behind her the Weberns showed they could set up a convincing sound stage. They have great poise in this respect, are largely vice free and a very easy listen.

Not surprisingly the Weberns proved adept at portraying a large orchestra, the Philharmonia sounding both sizeable and vigorous as they worked though Wagner’s Reinzl. Strings, which can sound a little edgy on my CD of an old Kingsway Hall 1960s analogue recording, were gently smoothed and made palatable. With classical, as with most Rock, the Weberns were thoroughly entertaining.

Vienna Webern £500 (each)

Henley Designs
Oxfordshire OX11 7HP
Tel: + 44 (0)1235 511166
www.henleydesigns.co.uk

MEASURED PERFORMANCE

Vienna Acoustics use an input capacitor to feed the bass unit of this infinite baffle enclosure. It gives the ‘speaker a very fast bass cut off below 80Hz, something both the impedance and frequency response curves show. The Webern will have no low bass at all, as a result – not even a little port output! This is quite drastic and I wonder why it was found necessary; perhaps the shallow alloy cabinet started to complain.

Above 80Hz the Webern is flat enough, although it is no match for modern monitors. The upper midrange falls gently before the tweeter peaks at 16kHz. The slow fall will add softness but the upper peak may be heard with discs possessing extended treble energy.

An impedance of 5.7ohms helps this ‘speaker deliver a high sensitivity of 88dB. However, the bass unit has a DCR of 3.5ohms or thereabouts, so bass current will be drawn.

The Webern measures reasonably well and its twin bass drivers might have some impact. Low bass doesn’t exist though.

NK

W 525mm H267mm D 110mm weight 7.5kg

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You’ll have guessed by now, if you have read the reviews, that the small Bluenote Audiovox A3 wasn’t really up to scratch either in its standard of finish or level of performance. Unlike the others it doesn’t represent the mainstream and as a one-off is unrepresentative of what is possible today. That isn’t to say it’s without any ability, since the dry, bright and apparently detailed sound of the A3 is a recurring theme in loudspeakers — so someone out there likes it! I’m reminded of Rega’s Ara, although I fancy the Rega was a tad better in terms of smoothness and general fluency, as well as standard of finish, for a fraction of the price.

For a really small speaker Dali’s Royal Menuet II works well. It gives a fairly strong insight into a performance and fine imaging from a small cabinet. Enthusiastic and certainly engaging, the Royal Menuet II is a fine miniature, perhaps the sort of thing many people are after. I am not quite convinced it is a great step forward in the art of loudspeaker engineering so much as a competent design, with just a few small quirks. Since there is no difficulty in ensuring a loudspeaker has smooth, accurate treble, any rise in output is usually deliberate, probably added to give some zing in the showroom. This is more common in mainland Europe than the UK, where we tend to go for a softer sound and certainly one that is more accurate in measured terms. The curtailed bass output of the Royal Menuet II is merely a function of its small size; you cannot expect any more. In spite of these minor criticisms the Royal Menuet IIIs were enjoyable.

At £500 apiece the Vienna Webern carries a premium for the complexity of its cabinet design and quality of construction. If you have a modern home and the style of these speakers appeals to you, they are an easy sounding and enjoyable option. On the softer side of being accurate they are easy to listen to over a long period — which is important. Apart from price the only drawback of the Webern is lack of deep bass. A small subwoofer would add in the missing bottom octave, giving a stylish modern alternative to the wooden box.

Opera’s Operetta is a carefully engineered alternative to the phenomenon of the bright modern loudspeaker. I understand the approach and can sympathise with it because a loudspeaker like this allows you to relax with any recording, no matter how harsh. Opera use top quality components, our measurements show, carefully combined to provide smoothness with a high degree of accuracy. My only observation here is a technical one: the port doesn’t exert enough damping upon the bass driver and could be improved. This affects Rock more than classical in use, but I suspect the Operetta is more for classical buffs, or listeners who like soft Rock.

Talking of which, for Rock the NEAT Petite 3s have some great credentials. They are tight, detailed and fast. They go low and they go high — with a lot of vigour. With these loudspeakers you are aware of spectrum extremes, which draws emphasis away from the midband, yet they are quite clear and concise with vocals too. The NEATs aren’t perhaps the last word in smoothness or subtlety, but they are honest, revealing and exciting. NEAT loudspeakers have always had a following and the Petite 3s show why clearly enough.

And finally come KEF’s new XQ Ones that really are in a class of their own. With a depth of insight that is unmatched, plus a sense of cohesion that is rare the XQ Ones are startling. Tight as a drum, very dynamic and supremely accurate too, they show just how it can be done nowadays. Do they capitalise on DVD-A and SACD? Yes, definitely, but whilst their sound is vividly clear, it is quite challenging too. The aluminium tweeter and titanium hypertweeter give these loudspeakers a shiny-bright presentation that with DVD-A in particular is strenuous. Matched with a smooth amplifier — perhaps an Arcam – the XQ Ones will sound breathtaking. They are expensive, but they are special and definitely worth a listen if you want the very best from DVD-A or SACD, in a small package.
Marantz is moving into new dominions with its brand new DH9300 digital audio server, the DH9300. David Price proffers a critical ear.

It was three years ago when I first set ears on Terratec's M3P0 hard-disk based MP3 music player. I was sufficiently impressed to say that, "what you're looking at here could well be the future of music". Well for once I wasn't completely wrong, as since then we've seen a welter of hard-disk based 'audio servers' launched, from Linn's Kivor to Yamaha's CDR-HD1300. And very popular they're proving too - hardly surprising then, that Marantz would want a piece of the action.

Although HD-based 'audio servers' are not a new thing, they're still relatively risky to do considering the development work required and the need to grapple with rapidly changing PC devices. Furthermore, it's one thing to get music out of computer devices, but another to get anything approaching a decent sound. Indeed, it's only the likes of Linn's aforementioned Kivor that have come close to offering a truly uncompromised solution. It's into this territory that Marantz wants to tread, with the DH9300 you see before you.

It's not cheap though. Granted, at £2,500 the DH9300 is a quarter of the Linn's retail price, but considering that Perception Digital has just launched its PDHercules Jukebox II (which is also a proper grown-up hi-fi separate) for just £150, nor is it 'sale of the century' material either. Rather, it treads a path between serious audiophile esoterica and affordable hi-fi. It also offers uncompressed digital recording and playback of about 120 CDs worth of music, plus 320kbps, 192kbps VBR (variable bit rate) and 128kbps MP3 functionality. In addition, the DH9300 has extensive video output options for its on-screen display, and the ability to drive multiple 'zones' as part of an Opus multi-room system. It has a built-in modem which it uses to access the CDDB online database for full text information, and a future-ready communication port to upgrade new software releases or to enhance system control for integration with other network devices. Impressive stuff.

Inside the bespoke metal casing (440x375x98mm, 7.8kg) you'll find Marantz's own CD6000 OSE CD drive mechanism (itself a computer CD-ROM drive unit) for music ripping and CD playback duties, plus op amps from the same player's audio output section. The operating system, however, comes from Imerge - the XiVA system is well known in multi-room circles and justifiably popular. The result is a versatile product that can drive four separate stereo amplifiers (via Marantz System Control connectors) and four separate TV displays via SCART or Composite video connectors. In this review however, we auditioned it as a good old, unreconstructed stereo hi-fi separate with all video displays disconnected.

XiVA isn't exactly as nice as using a Mac computer, but I guess that it's 'terse and to the point' - you can get stuff done with relatively little fuss. The four-line fascia mounted backlit LC display is easy to read (in low light, at least) and gives you easy, logical options. The unit can be configured extensively by the Settings menu, but there are no direct buttons on the front panel. For example, if you want to set the recording quality (bitrate), you have...
to go into this menu and scroll through the various options (phone settings, etc.) using the four fascia mounted (or remote controlled) cursor keys until you reach this particular submenu. Whatever happened to 'hot keys' that do things with just one press of a button?

Anyway, without giving a XIVA-for-beginners lesson, the Marantz is reasonably easy to use and looks and feels more like a standard 'hi-fi separate' than most similarly equipped rivals. And unlike Imerge's own S1000 (reviewed in May 2002), it doesn't look like a supercomputer that's been half-inched from a research lab and entrusted to music duties.

Ironically, the machine's rear panel is far more densely populated than the front - four sets of RCA phono outs, modem socketry, USB, VGA, Ethernet, four S-video outputs, digital and coaxial inputs and outputs - the list goes on and on. Anyway, connected up to my reference Cyrus 7/PSX-R amplification and Mission 752 loudspeakers, the DH9300 offered a most uncluttered sound. Brian Eno's 'Backwater' showed it to be a genuinely clean and open performer with a good deal of depth, detail, subtlety and finesse. Of course, its CD replay performance is miles behind similarly priced CD players, but this isn't comparing like with like.

The key to this machine's sound is its open and engaging midband. Fluid and rhythmically coherent, the track's central piano part was extremely tight and fast whilst retaining a good degree of its natural warmth and timbre. Open enough to celebrate the excellent sound quality of late nineteen seventies recording technology, the Marantz did its best to dissolve and simply let the music flood out. Bass was decently full and warm - albeit nowhere near as tight as, say, Meridian's £1,000 507 CD player - with a nice, bouncy feel to Paul Rudolph's string work. At the other frequency extreme, the DH9300 showed itself to be a touch curtailed, but warm and smooth with it.

The Pixies' 'Hang Wire' showed this machine's ability to stay smooth in conditions of (sonic) adversity. Despite cranked up amps and distortion pedals at full tilt, there was little in the way of hardness. Instead, it conjured up an impressively deep and capacious recorded acoustic. Once again, it wasn't up to the best of the £1,000 class, but it was comfortably up with the likes of Marantz's own CD6000SE. Switching to uncompressed hard disk copies of the same, I noticed a very subtle edge to the sound, which livened things up a tad and pushed the midband forward ever-so-subtly. There was also a very marginal flattening of stereo depth perspective, but this was the subtletest of things.

Overall, it's an excellent product. Both a fine silver disc spinner and an extremely capable HD recorder that gives very, very little away to the original CD source - it's a superb product. However, I'm simply not convinced its worth £2,500, especially as Imerge's own S1000 (admittedly sonically inferior) is a grand less. If Marantz did a stripped down DH9300 without the multi-room stuff - which is of only limited appeal - and knocked a good few hundred spons of the ticket price, then they'd have a winner. Although probably the best audio server this side of a Linn Kivor, it's just a touch too much in the capital outlay department for my liking. Recommended nonetheless.

Marantz DH9300 £2,500
Marantz UK Ltd.
Tel: 01753 680868
www.marantz.com
When five stars just aren't enough...

KJ WEST ONE

The World's Finest Hi-Fi
& Home-Cinema Systems

Nationwide Delivery
& Expert Installation

26 New Cavendish Street
London W1G 8TY
Phone: 020 7486 8262/3

BRANCHES IN NORTHAMPTON (01604) 637871 & PETERBOROUGH (01733) 341755

www.kjwestone.com
**OPERATING NOTES**

Imerge's XiVA 'Hard Disk Media Appliance Software' is at the heart of the DH9300 and can be found on everything from Linn's Kivor to Imerge's own S1000. Designed to integrate all the various parts of the machine (i.e. hard drive, memory, modem etc) and make the management of audio libraries simple, it's a flexible system. Music tracks can be stored and played back by album, track, artist or genre. The software takes care of playback, automatically selecting tracks from the entire music collection to fit the mood or style selected. It connects to the internet via the XiVA-Net portal, and lets you get web-based music content onto your TV screen via your hi-fi. It sends users information tailored to their own tastes, such as music purchases, ticket and artist information. Computer geeks may be interested to know that it's a scalable high level language that's portable across operating systems (including Windows and your beloved Linux!) It's even upgradeable online - the Marantz DH9300 tested here uses the very latest version 3.0.

**MEASURED PERFORMANCE**

Although some engineers would still have us believe that digital recording is a thoroughly transparent process, in practice this is rarely the case. While remaining bit-for-bit accurate, any change in the timing between bits will still cause additional jitter, which can be audible once converted back into the analogue domain. Jitter is not affected so much by the partitioning and buffering of data that occurs when more than one output is driven simultaneously, but by the degree of MP3 data-compression. In common with the ATRAC system used by Sony's MD, jitter increases according to the block rate of the encoding which, in turn, depends upon the nature of the signal. Greater frequency-selectivity is given to a relatively constant signal, including that used in the jitter test, so the sidebands visible on the green spectrum (Graph 1) are extensive but low-rate in origin.

The dark blue trace depicts the Marantz DH9300 under ideal conditions (one output driven from an uncompressed recording), with an inherent level of jitter at a moderate 450psec. With more compression invoked during recording, jitter increases until it reaches a heady and subjectively debilitating ~8000psec with 128kbps MP3 data.

Other parameters, such as noise and distortion, are not so obviously affected by compression although its bandwidth most certainly is. Graph 2 shows the recorder's frequency response when forced to deal with multi-frequency signals, like 'real' music. Uncompressed recordings (dark blue trace) enjoy the full CD bandwidth while those compressed to 128kbps stop dead at 14.9kHz, over 5kHz shy of CD's original response. Otherwise, the levels of noise, distortion and linearity would be perfectly respectable in a budget CD player (don't forget, the DH9300 behaves like four CD players in one box), although the 1.85V peak output is a little low. Graph 3 shows a 20kHz signal recorded with no compression at 0.013% distortion. Note the stopband image (a feature of the modest digital filtering) and rather 'grassy' noise floor which indicates the presence of low-level quantisation distortions. So while the DH9300 could be 'cleaner', it's worth bearing in mind that this particular solution faces no direct competition.PM

**Frequency Response**

CD 20Hz - 20kHz (0.0/ -0.2dB)
128kbps MP3 20Hz - 4.9kHz (0.0/ -0.2dB)

**Distortion**

<table>
<thead>
<tr>
<th>Left</th>
<th>Right</th>
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<tbody>
<tr>
<td>-6dBFS</td>
<td>0.0007%</td>
</tr>
<tr>
<td>-30dBFS</td>
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<td>0.26%</td>
</tr>
<tr>
<td>-90dBFS</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

**Separation**

1kHz 106dB 107dB
20kHz 95dB 94dB
Noise (IEC A) 98.5dB 98.2dB
Output 1.85V 1.83V

**World Verdict**

Excellent sound compared to its rivals, allied to fine build and a slick user interface, make this a top product - if a little on the expensive side.
NOW HEAR YOUR MUSIC REPRODUCED
AS IT WAS MEANT TO BE

VINYL IMPERATIVE
Correct alignment and support of the LP on the platter is THE most important aspect of vinyl reproduction. The new Anniversary Ringmat, at £70, is THE pre-eminent record mat for virtually all turntables. Further significant improvements can then be achieved by using:

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Simply, the finest cables for linking-up your hi-fi system
Our Pure Signal Interconnects from £105 per stereo pair and Pure Power Speaker Cable from £25 per mono metre are the finest, most affordable cables available to you.

"So dropping them straight in... immediately after the Valhallas probably wasn’t the kindest thing I could have done! Surprisingly, the Ringmat leads stood up remarkably well, which speaks volumes for their musical balance, eveness and coherence…. and that’s quite a feat when you consider the extent to which the Valhallas embarrass... the most expensive competition."

Roy Gregory Hi-Fi+ Issue 19 Sept-Oct 2002

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The Beauhorn Virtuosos simply manage to make music of all kinds more interesting and involving than conventional speakers.

~Paul Messenger Hi-Fi+

Wall of sound? It is a whole building, from Parsifal to Public Enemy, the Beatles to the Blockheads, JJ Cale to JSB, everything sounds terrific. Acoustic and orchestral stuff become religious experiences.


~Toby Burnham The Times [B2 review]

If it's the music that you care about, then these are most certainly the speakers for you. Dare to be different. Seek information now.

Beauhorn

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If you thought that Pro-ject was noted only for its range of turntables, then think again, says Dominic Todd as he encounters this cute little pre/power combination.

In a world of ever more audio integration, it's fine to see someone bucking the trend. When I first became interested in hi-fi in the late 1980s, it was companies such as Moth, Meridian and Crimson who, with their component amplifiers, helped fuel my passion. The more boxes the better as far as I was concerned, especially as it meant even more interconnects, mains leads and supports to get stuck into.

These days a lot has changed and, with the exception of Musical Fidelity's successful X-series amps, are usually pretty boring integrated affairs, at least at the 'budget' end of things.

Imagine my delight then, to be sent from the savours of budget turntable design, Pro-ject, a new, reasonably priced, component amplifier system. In essence it consists of a powered pre-amp and two 65watt mono-block power amps. As you would expect, a decent quality phono pre amp is also available, but not reviewed here.

On the outside, at least, the little 'Pros certainly look the part. The powder-coated, ribbed aluminium case feels sturdy, and the black Perspex and blue LEDs finish the design off neatly. Inside, it's perhaps a little more disappointing. The build quality certainly isn't quite up to the standards of MF's X range, and the components are rather ordinary. True, the power amps have toroidal PSUs, and the Edgar circuit boards appear to be of good quality, yet there's nothing here that really stands out. Apart from, that is, the volume control and switch selector which are mounted at the rear of the Pre Box's casing; just as was always the way with the best budget audio. Shorter signal paths result, as does the rather unfortunate consequence of sticky control knobs.
Award winning movie stars...

The perfect balance between music and movies

Rarely, has a home cinema speaker package garnered such rave reviews as Mordaunt-Short's stunning Declaration 500 Series THX Select system. For once, the audio press has been united in its praise for a product.

What Hi-Fi? Sound and Vision could find, “nothing” against it, Home Entertainment “rarely recommended with such confidence”, and Hi-Fi Choice was “impressed from the outset”. The 500 Series THX Select system underlines our commitment to engineering excellence. It also proves brilliance needn’t be boring.

For more information visit our website www.mordaunt-short.co.uk/thx

For free literature on the 500 Series THX Select from Mordaunt-Short, call 0845 128 3951 World Radio History
One of the consequences of a good monoblock design should be a broad sound stage and excellent individual 'speaker control'. With The Art Of Noise's 'Metaforce' the Projects lived up to this expectation. The bass response was especially solid and punchy, even though it did chicken out from producing some of the lowest bass notes. I was also occasionally aware of a slight softening in the low bass, in contradiction to the overall high levels of control.

Vocals weren't so much projected, as thrown from the 'speaker to land at my feet'. This gave me plenty of insight into the staging of the recording, yet it may be a little too forward for some. The balance was very much one which would grab you by the scruff of the neck rather than seduce and beguile you. That may or may not appeal, yet the dynamic control, and leading edge instrumental attack could hardly fail to impress in a Naim type way, even if that's not your type of sound.

With this in mind I was interested to see just how the Boxes would cope with something a little more subtle and acoustic, in this case Claire Martin's 'Monk's New Tune'. Whilst they did show the same qualities of a broad sound stage and fine vocal separation, the amps also revealed some less pleasing traits here. The percussion I found to be a little splashy, and there was a noticeable 'transistor' edge to Martin's vocals. Generally, however, the piece was lively and helped along by a fine piano timbre.

‘In A Room’ by Dodgy provided a similarly edgy but fast presentation. In this case, though, the rough edges suited the music more, and I felt the Projects to be true to the nature of the recording and music. Having said that I could see that with 'speakers on the sharper side of neutral, things could potentially become a little too brash. The bass guitar didn't have quite the presence I would have expected, which did little to help the rather forward balance. Had it had a little more weight, then the balance would be more cohesive. The interloping brass section was portrayed in an entertaining manner as it should be, and showed off the Boxes strength with brass, being both vibrant and detailed.

Chabrier's colourful orchestral piece Espana had the first rate drive and attack that I'd been expecting. Even the dullest sounding amp can be whipped into life with this piece, so you can imagine the fireworks the Projects created. Once I'd unpinned myself from my chair, I did find the piece rather too mechanical though. Yes, the brass section was presented with great gusto, and the detailing was quite good too, yet the strings were a touch grainy, and the piece could have proceeded with a little more grace and less pace. In short, whilst providing moments of excitement, it wasn't the most mellifluous of presentations.

As you can probably tell by now the Projects are something of a curate's egg. I so wanted to like these amps, but ultimately found them just too flawed to really take to heart. It's ultimately down to a lack of refinement, at least for many a British ear. With certain types of music such as vigorous Rock and dance music this really doesn't matter, and can even enhance the recording. Classical and vocal jazz, however, proved somewhat tiring to listen to. Partnering with smooth and sweet components will reduce this effect; brighter equipment would exacerbate the problem.

Yet, there's no doubting the Projects wide dynamic range, and exceptional mid-range and upper bass control. For rock, thrash and dance music lovers looking to spice up a particularly bland system, the Pre and Power Box are well worth a look and offer good value for money.

**Pro-ject Pre Box £300**
**Power Box £250 each**

Henley Designs Ltd.,
Tel: + 44 (0)1235 511166
www.henleydesigns.co.uk

**MEASURED PERFORMANCE**

The Project clipped very softly at full output, usually a sign of low feedback. All the same, it produced very little distortion once warmed up and was remarkably clean at high frequencies. The little distortion it did produce was low-order only, so on balance I would expect these amps to sound very smooth and easy going, even when pushed hard. They handled 4ohms well too.

Power from each monoblock measured 60watts into 8ohms and 81watts into 4ohms, enough for most situations, if not the largest rooms or the most insensitive loudspeakers.

Frequency response was wide, stretching from 7Hz up to 73kHz (-1dB), so these amps handle DVD-A and SACD.

With useful input sensitivity of 320mV these little units provide good power with minimal distortion. **NK**

**Power**
60watts

**CD/tuner/aux.**

Frequency response 7Hz-73kHz
Separation 64dB
Noise -91dB

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**World Verdict**

Small, stylish and reasonably good value. They will excite with dance and rock but ultimately lack the refinement needed for jazz and classical.

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![Distortion](distortion_chart.png)

[www.hifieworld.co.uk](http://www.hifieworld.co.uk)  APRIL 2003  HI-FI WORLD & COMPUTER AUDIO
t's hard to believe that a small family run business in north London is one of the world's foremost manufacturers of high end turntables, but this is indeed the case. Michell Engineering run a small but highly professional outfit that produces turntables of astonishing build and sound quality that continue to be references throughout the audio world. The added bonus is that the company's products really look the business, mixing cutting edge design with solid engineering. And when you look at their lineage this should come as no surprise.

Michell has been involved in audio for almost forty years: it was started in the early sixties. Founder John Michell created J.A. Michell Engineering as a precision engineering company, dealing with the local film industry. For example, they created model spacecraft for Stanley Kubrik's "2001 - A Space Odyssey". This work extended to motorcar and aircraft builders, as well as audio component manufacturers. Eventually the company launched itself into the audio market when it took over the manufacturing of the ultra-modern looking Hydraulic Reference turntable (seen in yet another Kubrik film, "A Clockwork Orange") from Transcriptors. From here, the Hydraulic reference was followed up by similarly styled products, such as the Prisma, an up-market version of the Focus One, the company's entry level product in the seventies.

In addition to turntables, Michell also produced the Fluid and Focus unipivot tonearms, right up to the early eighties. A few oddities were also developed, such as the bizarre Double Prisma, which housed two platens on the same plinth with a shared drive system - a few of these were made for the German market.

Eventually, in 1981 Michell developed the now classic GyroDec, which was a ground breaking floating chassis turntable with balanced armboards and stabilised suspension. After this came the Syncro entry level turntable, then the Mycro, which was ultimately replaced by the Gyro SE. At the top of the range came the Orbe turntable. The late eighties the company partnered their range of vinyl products with amplifiers designed by Tom Evans and Graham Fowler. The Iso phono stage was one of the first specialist high-end phono head amps to use op.amp ICs.

After the Iso came the Delphini phono stage, as well as the Argo and Orca line stage preamps and the 'top hat' styling of the Alecro monoblock power amps. A prototype CD player emerged in 1997 but production was eventually scrapped due to the emergence of high resolution digital formats.

In 2001 amplifier production was moved on to Graham Fowler's Trichord Research, leaving Michell Engineering to concentrate solely on their range of turntables and accessories.

What we have to give away this month is the brand new turntable from the company, the TecnoDec. This has been reviewed by David Price this month. He commented: "the TecnoDec has a very open and neutral sound...it is speed-stable, rhythmically coherent and secure, dynamically uncompressed and tonally neutral". This superb turntable has all the attributes of the other spinners in the company range and is powered by the excellent Trichord developed DC power supply.

If you want to benefit from the enjoyment this turntable could bring to your system, then here's your opportunity. Winning a TecnoDec couldn't be easier. Simply answer the following questions on a postcard and send it to the address below by March 31st. The first correct entry out of the bag will receive this superb prize.

---

**COMPETITION**

WIN A SUPERB MICHELL TECNODEC TURNTABLE IN THIS MONTH'S HI-FI WORLD GIVEAWAY

---

**Questions**

1. **Who was the founder of Michell engineering?**
   - [a] Joan Michell
   - [b] John Michell
   - [c] Jeff Michell
   - [d] Michell Myabelle

2. **In which Stanley Kubrik film does the Hydraulic Reference turntable feature?**
   - [a] 2001 - A Space Odyssey
   - [b] Full Metal Jacket
   - [c] A Clockwork Orange
   - [d] One Flew Over the Cuckoo's Nest

3. **Which turntable featured two platens on the same plinth?**
   - [a] Double Prism
   - [b] Double Mycro
   - [c] Double Trouble
   - [d] Double Prisma

4. **Which took over manufacture of Michell's amplification in 2001?**
   - [a] Chord Company
   - [b] Audio Research
   - [c] Trichord Research
   - [d] Acoustic Research

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**Hi-Fi & Computer Audio World Competition rules and conditions of entry**

1. Only one entry per house hold.

2. Multiple entries will be automatically disqualified.

3. Purchase of the magazine is a pre-condition of entry.

4. No correspondence will be entered into.

5. The Editor's decision is final.

6. No employees of Audio Publishing Limited, or of any companies associated with the production or distribution of the prizes may enter.

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**CONGRATULATIONS**

...to Mr. J. Furtado of Essex, Mr. J. Hobbs of Bristol, Mr. K. Twine of Somerset, Ms. L. Everett of Kent and Ms. N. Mihaslovic of Scotland the winners of our February competition.

A pair of Mordaunt Short 914 floorstanding speakers are on their way to you!
Sevenoaks Sound & Vision stocks a wide range of DVD players, amplifiers, speakers, plasma monitors, televisions and projection systems from all the leading manufacturers.

From starter systems to custom designed multi-room and home cinema installations, our friendly staff are available in all outlets to advise, demonstrate and guide you through the home entertainment jungle. If you're interested in home entertainment and want to avoid the confusion, contact your local Sevenoaks Sound & Vision outlet and experience more. 0% interest free option* is available on most products.

Musical Fidelity

Tri-Vista Series

Celebrating Musical Fidelity’s twentieth anniversary, the new limited edition Tri-Vista series offers both audio excellence and value for money. The first products released are the Tri-Vista 300 Integrated Amplifier and the Tri-Vista CD/SACD Player, with Pre and Power Amplifiers following later this year. Both products are already receiving excellent reviews - Hi-Fi World (January 2003) said “If you want extreme power with superb grace the new Tri-Vista 300 is quite exceptional” - while the CD is, according to Hi-Fi Choice (January 2003), “Simply the best CD Player MF has ever made and one of the finest available anywhere.”

Arcam

SOUND & VISION

Arcam has been at the forefront of designing home cinema since 1996 and has established an international reputation for audio excellence. This highly specified combination is enhancing this reputation even further, having already been described as "Arcam’s best ever product to date."

The ultra-flexible AVE Pre-amp Processor offers Dolby Digital, THX-Ultra II Logic II and DTS decoding and is among the first processors to have THX Ultra II certification for music and movie post processing. According to Arcam, the partnering P7 Power Amplifier is a 'true audiophile powerhouse' delivering over a kilowatt of power from seven channels each THX-Ultra rated at 150 watts.

This combination has recently been awarded 'Editor's Choice' by Hi-Fi Choice magazine - being described as "A fantastic achievement from this respected UK brand - an AV processor par excellence." - while Hi-Fi World (March 2003) concludes, "Hight now, this is the best reason to go multichannel I can think of. Exquisite.”

New Outlets Now Open

We are delighted to announce that we have opened new stores in the following locations: Poole 01202 671677 • Solihull 0121 733 3727 • Swindon 01793 610992 and Wolverhampton 01902 312225. In addition, the Leeds store has relocated to larger premises and offers an improved product range and demonstration facilities.

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Please refer to Page 7 for full address and telephone number details.

www.sevenoakssoundandvision.co.uk

experience more
Debut II Turntable (Black) £114.95

The original Debut Turntable romped away with a Product of the Year Award in 1999, and the MKII version continues the extremely good work. It's a simple affair, that's easy to set up, but don't let the price fool you - it sounds a whole lot more expensive than that. This is a fine turntable, and it clearly reveals the benefits of listening to vinyl, with a rich and detailed soundstage, and a good dynamic response.

It's available in six funky colours, so you should find one to suit your decor, and at just a smidge over £100, you can have no excuse not to keep that old vinyl collection in employment for a good few years yet.

EMEI  ***** Awards 2000
Selected outlets are Project Turntable Centres. Colour Options are available at additional cost

RCD-02 CD Player
£379.95
£349.95

RCD-02 CD Player
"Whether it's the raw, and sometimes just plain barking vocals of Tom Waits, or the stinging guitar stabs of Pete Townend on some old Who tracks, the Rotel is one of those players that can't help but bring a smile to the face - it's a breath of fresh air."

***** September 2002

RA-02 Amplifier
"The amp has a fast, detailed and yet satisfyingly full presentation. That allows it to make a fine job of the beats of Groove Armada's Goodbye Century set without losing sight of the fine details of the mix, and also husking out Marianne Faithful's deliciously smutty vocals on Kissing Time with real relish."

***** August 2002

Aegis Evo One Speakers £179.95

"The original Aegis Ones were great speakers, to the extent that they were category winners in our 1998 awards. Since then a host of new models have raised the standards in the sub-£200 category, and the Aegis Ones soon went from stunner to also ran. AE's response to that is an EVO version.

The Aegis Ones genes are clearly evident. The original's refinement and bass weight are preserved and backed up with better openness and more free-flowing dynamic ability. The old speakers would have delivered a cool and calm version of Pinks Missundaztood set - they'd be enjoyable, but would lack a little drive and excitement.

The new speakers, however, address those limitations... Add authority and good stereo imaging to the list of plus points and it comes as no surprise to find these speakers at home with classical, too. Indeed, running through our test room's extensive CD library we couldn't find a genre that these AE's weren't happy playing."

***** July 2002

CD Players

Free

Arcam CD4 £369.95
Arcam CD4 £369.95
Cyrus CD7 £799.95
Denon CD4 £119.95
Linn Genki £994.95
Linn kerni £1994.95
Marantz CD4000 £89.95
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Musical Fidelity A300 £1999.95
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Quad 99 CD-P £999.95
Roksan Caspian £994.95
Rotel RD1070 £494.95
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Claim £120 Off the Speakers* of your choice
When purchased together with any Rotel CU & Rotel Amplifier combination. Min. Spk Value £240

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Interconnect Cable* worth £60
with ALL CD Players over £300

Please Note: Some products may not be available at all outlets. \nAn entitlement valid until at least 12th March 2003. \n*From our selection in-store - Not in conjunction with any other offer.
**Amplifier Selection**

- **Arcam DVA A65 Plus Amplifier** £369.95
- **Arcam DVA A75 Plus Amplifier** £469.95
- **Arcam PMJ A32 Amplifier** £1149.95
- **Cyrus 6 Amplifier** £799.95
- **Cyrus 8 Amplifier** £1149.95
- **Denon PMA355 Amplifier** £179.95
- **Linn Kolektor Pre Amplifier** £494.95
- **Linn UK95 Power Amplifier** £494.95
- **Marantz PM4200 Amplifier** £139.95
- **Musical Fidelity A3.2 Pre Amplifier** £999.95
- **Musical Fidelity A3.2 Power Amplifier** £999.95
- **Musical Fidelity Tri-Vista 300 Amplifier** £1999.95
- **Musical Fidelity Tri-Vista 300 Amplifier** £3994.95
- **Quad 19 Power Amplifier** £549.95
- **Roksan Caspian Amplifier** £894.95
- **Ratel RA-01 Amplifier** £249.95

**Claim £150 Off the Speakers* of your choice**

When purchased together with any Arcam CD & Arcam Amplifier combination: Mix & Match: £500

**ARCAM SOUN D & VISION**

<table>
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<tr>
<th>DiVA CD82T CD Player</th>
<th>DiVA A85 Integrated Amplifier</th>
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<tr>
<td>£599.95</td>
<td>£799.95</td>
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**DiVA CD82T**

Arcam’s latest sounds like a more mature version of its little brother. On an initial listen the increased solidity and refinement are obvious, but over time the subtler dynamic shading and more assured handling of transients come to the fore. The Arcam CD82T is one of the best CD players available at this price point.

**DiVA A85**

"You’ll have realised by now that we rather like this amp. It took us completely by surprise, and further strengthens Arcam’s already impressive product range... The A85 is superb, and we can’t wait to put it up against its peer in a group test."

**B&W Bowers & Wilkins DM602S3 Speakers £299.95**

"But the B&W 602 S3 are our winners. They’re big and not particularly beautiful, yet if it were our money they’re what we would buy. No rival can match the wide ranging dynamics or low frequency performance of these not so compact standmounters. Add all-round sonic excellence and the choice is easy. Give them sufficient space to breathe, then sit back and enjoy the music."

**DRX-701ES Digital Tuner £249.95**

This new tuner from the recently renamed Pure is based on the 2001 Award-winning VideoLogic DRX-601ES, but under the lid is an all-new third-generation digital radio engine, in the form of Frontier Silicon’s Chorus FS1010. Its biggest advantages are lower energy consumption and above all cost - it’s the major reason why the DRX-701ES is £100 less than last year’s model.

The tuner uses 24-bit/192kHz conversion with 4x upsampling and data interpolation, and is powered by a low-noise toroidal transformer - such attention to sonic detail pays off. Digital outputs are provided on electrical and optical feed, but most people will use the analogue out, and these sound very good indeed. As usual the tuner is subject to the signal quality off-air, but when it’s fed from a high-quality outdoor aerial and a good signal it’s capable of a crisp, powerful and detailed presentation. Even more pops up music stations like Radio 6 benefit from the mix of a neutral balance and fine weight, while speech is also neutral and easy to follow. If you want a quality home tuner for digital radio, you need look no further.

**Sevenoaks Sound & Vision**

We always try to ensure our prices are highly competitive. If you can find the same products and excellent service at a lower price, please bring it to our store managers’ attention.
**Cyrus 8 Amplifier**

"The 8 is a large step forward from older generations of Cyrus amplifiers, and takes the company back into the leading pack in the sub-£1000 integrated amp sector... The Cyrus 8 is a must-audition product." — a ***** July 2002

**Cyrus 70 CD**

"How it compares directly (with the competition) is a matter for a group test, but I can tell you now that it'll be a close one; because the CD7Q is a fantastic CD Player, offering all you'd expect from a disc spinner at this price, and more... The CD7Q's a major upgrade from the class-leading CD7. Its weighty, detailed sound puts it at the pinnacle of CD players at this price." — 1 ***** October 2002

**Roksan Kandy KA1 MKIII Amplifier**

"When we last reviewed Roksan's Kandy integrated amp in February it fought off serious competition to come top in a Supertest. This is its replacement, the MkIII. Internal changes include an uprated power supply for the preamp section and identical mono modules for the left and right power amp sections. Roksan also claims 50 percent lower distortion on line-level inputs and a whopping 150 percent less on the phono input. The rated power output is an impressive 120 watts per channel into 8 ohms, and this amp has a confident, muscular way with music that bears this out. But don't be fooled into thinking this amp is raw but unrefined. With Van Morrison's Down the Road the Kandy has the guts to render the performance exciting and dynamic, but also the guile to deliver subtle details."

**Quad 11L Speakers**

"Quad is best known for its superlative electrostatic designs, which start at £3500. So any £379 pair of speakers that carries the company's name has to be going some to avoid tarnishing the family reputation. The first surprise is that the 11Ls come in real-wood veneers covered with piano-gloss lacquer. This type of finish is almost unheard of at the £1000 mark, let alone at this price. Has anything been sacrificed for such a luxury finish? Here's the second surprise: apparently not. The final surprise? Well, saving the best for the last, the sound quality of the 11Ls is phenomenally good. These are small speakers at just 33cm tall, but the scale and authority of their performance is terrific. The laws of physics dictate miniaturisation limitations, but thanks to a clever dual rear firing port arrangement the 11Ls plumb the depths of the sphere, even when placed in free space."

**Quadra_Energy_Aegis_Evo_Three**

"Acoustic Energy Aegis Evo Three... £349.95
B&W CDM 1NT... £749.95
B&W CDM 7NT... £1249.95
B&W DM100 S3... £179.95
Cyrus CLS70 (Black)... £799.95
KEF Q1... £249.95
KEF Q3... £399.95
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Linn Katan (Maple)... £634.95
Linn Krina (Maple)... £894.95
Mission 780 (Not SE)... £249.95
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Mission m74... £299.95
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Monitor Audio Gold Reference 20... £1499.95
Quad 22L... £895.95
Ruark Euphonia II... £344.95

Please Note: Some products may not be available at all outlets. Advertisement valid until at least 12th March 2003. 

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MUSICAL FIDELITY

A3.2 Series

A3.2 CD Player  £999.95
A3.2 Amplifier  £979.95

Replacing the WHAT HI-FI? SOUND AND VISION Award Winning A3 CD and Amplifier, the new A3.2 models have been further refined and re-styled. The A3.2 CD Player now incorporates the same DAC, filter assembly and control mechanism as the highly-acclaimed Nu-Vista CD Player. The A3.2 Amplifier draws on experience gained through the development of the Nu-Vista M3 amplifier and as such has inherited many of its qualities, producing a sense of ease and flexibility that is normally only associated with far more expensive designs.

Claim £250 Off the Speakers* of your choice
When purchased together with any MF CD & MF Amplifier combination. Min Spk Value £500

Also Available

Marantz DR6000
CD Recorder  £279.95

British loudspeaker manufacturer Monitor Audio has introduced a replacement series for its acclaimed and award winning Silver Series speakers. "The aim has been to offer real advances in performance and value", says technical director Dean Hartley. "New models include the Si and S2 standmounters, the S6, S8 and S10 floorstanders.

"With a close-miked track such as James Taylor's 'Em Up from SACD they really deliver the character of the singer's voice and they're just as expressive with the cultured rhythms of Groove Armada's latest outing, having just the right mix of rhythmic control and fluidity. But amazingly the best is yet to come: these are simply beautiful speakers for classical music, once a few days' thrashing has tamed their initial rawness. With the latest release of Holst's The Planets on DVD-Audio, they thunder out Mars with true conviction. These are rather magical speakers, with a poise and grace that belies their ability to turn on the power when required. Pair them with a good CD player and suitably accomplished amp, and you won't go far wrong."

Pioneer

PDR609 CD-RW Recorder  £199.95

"While it looks simple, the Pioneer has an impressive array of features, including the handy double-speed disc finalization and CD-Text compatibility. Internally, the PDR609 is a big step up from the Award-winning PDR-509 it replaced: the DAC is now a 24-bit/96kHz number, aided and abetted by Pioneer's Legato Link conversion technology, and it has 24-bit A-to-D conversion, which is ideal for copying your vinyl onto CD. If this is your plan, you'll appreciate that the Pioneer makes it easy to create first-rate copies from any source, helped by the manual recording-level controls. It was hard to tell our copy of Jim White's No Such Place from the original.

While the Pioneer's replay quality can't match the Marantz, it costs £120 less, which would buy you a lot of blank discs. If you've already got a dedicated CD player, we'd go with this recorder."

Recorder Selection

Marantz DR6000 CD-RW  £279.95
Sony RCDW3 CD-RW  £229.95
Yamaha KX393 Cassette Deck  £119.95
Yamaha X580SE Cassette Deck  £199.95
Yamaha CDR-HD1300 CD-RW  £519.95

We always try to ensure our prices are highly competitive. In the event you can find the same products and excellent service at a lower price, please bring it to our store managers' attention.
TAG McLaren's AV3OR AV Processor is aimed at the home cinema enthusiast who is concerned with keeping up-to-date with the latest surround formats. When partnered with TAG's 100x5R Power Amplifier it makes an exceptional combination.

According to What Hi-Fi? Sound and Vision magazine in their October 2002 issue: “In use, the AV3OR connected to TAG's 100x5R power amp. is superb. True, it can't quite match the clarity and power of the latest specification TAG flagship, the AV32Rbp-192, but by any AV standard this is a very high-end piece of kit, with excellent impact and fine detail across a range of movie soundtracks from Once Upon A Time In America to the explosive actionfests. Channel steering is immaculate, and the sense of a soundfield wrapped around you - even in 5.1-channel mode - entrancing, with spine-tingling rear-channel effects. The fine Pro Logic II implementation serves music as well as it does non-discrete AV soundtracks, and with an SACD machine hooked up via the 5.1 channel inputs, the lack of coloration and sheer bass oomph is extraordinary.”

Claim £150 Off The Speakers* of your choice when purchased at the same time as the Linn Classik Music System

REL is an audiophile company who take great pride in designing and building their highly acclaimed subwoofers. Because of their total commitment to performance, REL sometimes adopt unusual solutions to otherwise straightforward problems.

“What the aggression of Rage Against The Machine's 'Take The Power Back' is near-tangible, the midrange a spitting, spiteful companion for the tight, deep, air-agitating bassline. As for the more deft creations of Chick Corea, the REL's articulate nature serves subtly to underpin basslines, rather than swamp them. The adaptability makes the Strata III a highly recommended subwoofer - it's a very versatile, musical piece of kit, and it doesn't cost the earth.”

Claim Free Tivoli Model One Radio worth £99

Linn Classik Music System £999.95

The Classik Music System is an alternative to the sound and looks of mass market compact systems. Designed to be useful throughout the home, the Classik is simple and stylish with all the advanced features needed to satisfy the most demanding hi-fi enthusiast or discriminating music lover.

Since the Scottish company added a tuner to the amp/CD player, mouths have gaped even wider in appreciation. The addition of colour options ponders to the public's taste for kit to match their interior design, but it doesn't just look lovely in the lounge: the Classik sounds simply marvellous. Boasting fine impact and drive, it retains its grip even as it thumps out rock and dance tracks. Ask it to play quiet acoustic music and its smooth, liquid presentation impresses still further. The Classik offers the performance you'd expect from high quality separates in one lovely package - this is a very superior product.”

*From our selection in-store - Not in conjunction with any other offer.

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who are sevenoaks?

Founded in 1972, Sevenoaks Sound & Vision are one of the largest and most successful hi-fi and home cinema retailers in the country.

Each Sevenoaks Sound & Vision outlet stocks a wide range of quality products, covering all categories of specialist home entertainment, from DVD Players to Widescreen Plasma Televisions and Projection Systems, all at highly competitive prices.

Friendly staff are available in all stores to advise, demonstrate and guide you through the home entertainment jungle.

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We are currently recruiting staff at several locations. If you are enthusiastic, knowledgeable, have good customer service skills and would like a career within the audio/visual industry, call Janys Ness on 01732 466214 for more information.

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There are regularly updated stock clearance lists with hundreds of products on offer and detailed pages to help you locate your nearest outlet.

For impartial advice and information, just click on sevenoaksoundandvision.co.uk

stock clearance

With 48 outlets nationwide, the Sevenoaks Sound & Vision group stock and display a wide range of products. As individual models and product ranges are changed or superseded, the preceding models are made available at a reduced price, for clearance. Visit our Website for an up-to-date list of the clearance stock, listed by outlet, within the Sevenoaks Sound and Vision group.

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In the event you can find the same products and excellent service at a lower price, please bring it to our store managers’ attention. We will always endeavour to offer you the best deal.
Budget standmounts are improving on a monthly basis, in both sound and looks. Dominic Todd encounters the smart new Monitor Audio Bronze B2.

It's no longer good enough these days to have a superb performing 'speaker with a few rough cosmetic edges. Even a budget design has to look good whatever the cost constraint, something that didn't necessarily apply in days past.

It seems that Monitor Audio are well aware of this. Never a company to have produced a shoddy looking 'speaker, the new Bronze 2 continues this tradition. The wood finish may only be a vinyl imitation, but it's immaculately applied and tightly wraps a sturdy MDF cabinet. Inside there's a central brace, good quality oxygen free cable and a well-designed crossover using high-grade film capacitors.

For the price, the drive units look pretty impressive too. The gold coloured, metal tweeter is something of a MA hallmark now, and has been tweaked here for a smoother response.

The woofer is rather more deceptive. It appears to be a metal cone, yet feels more like polypropylene. Monitor Audio call it Metal Matrix Polymer, which I suspect means it's plastic with a few bits of metal in! Whatever the case, it's shielded, and of generous diameter for a 'speaker of this size and price. The bass port is rubberised to reduce air turbulence and front mounted to allow near wall positioning. It almost goes without saying these days that they are also bi-wirable.

The list of rivals is long and varied, but needless to say those with an interest in this 'speaker will probably also be considering the Mission m72 (£170) and Mordaunt Short 902 Signature (£200).

Kicking off with Rimsky Korsakov's Sheherazade produced some surprising results. There wasn't the scale of sound that I would have expected from this size of 'speaker, especially one with such a wide bass cone. However, given the budget pretensions, the level of transparency was equally as striking for its degree of insight.

Treble proved particularly incisive, contributing to good violin timbre and a fine rasp to the brass sections. It's not very often in a 'speaker of this price that one can detect subtle movements of violin
bow and string, yet the B2s really excel here. Despite this, the sound never became coarse, and maintained just the right balance of exuberance and refinement.

Having said that, there was a lack of solidity to proceedings that, whilst ensuring good timing, could also lead to listener fatigue. It wasn't as though the treble response was especially uncouth, just that its forward nature wasn't suitably balanced by the bass output.

Eva Cassidy's 'Letter' produced some mixed results. There was a wonderful openness to Cassidy's vocals and they were lent real strength and presence by the Monitor Audios. The guitar also had a fine level of detail, however the bass guitar really lacked weight. After coming back whilst leaving them running in for another 12 hours, I returned to find the same balance. It's a balance that isn't necessarily at fault, just one that sounds completely different from what I would feel the norm for this type of design. The Mission m72, for example would offer far more grunt, even if not the transparency.

The Cardigan's 'My Favourite Game' is already quite a bright recording, and the Bronze's made no effort to hide this. The sound was very forward, yet had an excellent height of stage and detail. The vocals were as open as ever, and bass similarly lacking. The bass response did improve when the 'speakers were moved back, but this was to the detriment of the staging. I found my personal preference to be about 30cm from a rear wall. At this point the Bronzes were still bass light, yet gave the listener the ability to listen into the music in the style of a more esoteric design.

To Monitor Audio's credit, the Bronze's reminded me of the late Epos ES14 - a stalwart design of the late eighties, famed for its insight but never regarded as especially mellifluous. The point is though, that the ES14 was £400, and that was nearly 15 years ago.

I tried The Divine Comedy's 'Bad Ambassador', if only because it's a smoother recording than some of the preceding ones. The MA Bs were certainly happier here, showing that they are rather recording fussy. Even during the piece's complex climax, they didn't become harsh. The layering of vocals and excellent resolution shown from the guitar impressed as before, yet there was something missing. Bass wasn't so much needed to drive the piece through, as it had plenty of verve, but it would certainly have helped underpin the track.

Having listened to the B2s for quite some time I came to the rather unusual conclusion that had they cost two of three times more, then they would be a more successful 'speaker. The reasoning for this is that I fear the B2s are simply too revealing for their intended market. In the sub-£200 arena 'speakers are generally expected to be warmer and weightier in the bass, and less analytical of poorer recordings, and weaker partnering equipment. The B2s tend to go against the grain by offering a highly incisive and transparent sound that is also bright and forward in the upper mid-range.

In the right system Monitor Audio's B2s could really excel, but an audition is even more of a necessity than ever. This is system sensitive 'speaker, but I have admiration for it nonetheless. The B2 has some strong features.

Monitor Audio B2 £200

Monitor Audio Ltd
Tel: +44 (0) 1268 740 580
www.monitoraudio.co.uk

MEASURED PERFORMANCE

The Monitor Audio Bronze tweeter has a large-ish dome that peaks around 10kHz, giving a few dB lift in output out our response analysis shows. Above 12kHz treble rolls off, but the ear will detect the peak lower down and hear some brightness. Large dome tweeters reach down into the mid-band nicely and Monitor Audio's integrates with the bass/mid unit well. The latter has a few peaks of its own though, which likely signify colouration of one form or another.

There's a peak at 100Hz which will speed bass a little, adding impact to hand drums for example. Forward output rolls down to 40Hz, a respectably low figure, below which the port provides quite a broad, damped output. It should control the main cone well, giving this loudspeaker light but well controlled bass.

Producing 89dB from 2.8V (one nominal watt), the MA B2s are very sensitive, even for a 'speaker that measures out a 5ohms impedance. They should sound dynamic, but are not an easy load.

The B2s measure well, they may sound sharp and bright, but also tight and dry in the bass. NK
Hi-Fi World examines every contemporary audiophile's dilemma - whether to swap stereo for surround-sound.

Whatever you think of the reasons behind the move to multichannel, the fact remains that it's happening, and that whether we like it or not, the music and electronics industries are gearing up for a mass exodus from stereo. Soon, large amounts of advanced resolution digital audio discs will be available, offering more sound quality than CD could ever dream of - in glorious 5.1 channel surround.

When the time comes for you to buy your next CD or DVD player, or preamp, power amp or speakers - you'll have this new technology staring you in the face.

What do you do? Is multichannel a dramatic improvement on your existing kit, or a large money pit with your name at the bottom of it - and no guarantee of satisfaction?

**DVD AS HI-FI**

It's easy to see, perhaps with a little hindsight, how the convenient DVD video player became so popular. As a replacement for CD, the prospect now facing us, DVD is a little less convincing perhaps. It must be hooked up to the television, but then that has already happened in most homes the argument goes, and it offers surround-sound, comprising front and rear loudspeaker pairs, a centre front channel originally intended for cinema dialogue and a subwoofer channel for cinema explosions, earthquakes and general cataclysmic events. SACD is much the same, offering six full channels of surround-sound in DSD (but not video).

This arrangement doesn't transfer so smoothly over to high fidelity. Music producers argue over whether to use the front centre channel at all; on some discs it stays silent. They also prefer to direct music-generated low frequencies to the four main loudspeakers, rather than divorcing the lows from the rest of the music and directing them to a single subwoofer, which may be placed far from the main loudspeakers.

Right now, multichannel mixing is about the stage that stereo was in 1965 - instruments are being panned all over the place with care-free abandon. This can sound very suspect, but give it time and we'll see some very sophisticated surround sound extravaganzas from DVD and SACD. Think of the difference in stereo mixing techniques between The Beatles' 'Hard Days Night' and Pink Floyd's 'Dark Side of the Moon'.

**TECHNOLOGY**

Stereo is just a construct, a line drawn in the sand when nothing else was possible, due to the limitations of early 33 1/3RPM Long Playing records. The fact that we've all become used to it, and have learned how to listen to it, doesn't mean it has any claims on being the natural format for high fidelity music reproduction. Musicians don't dream of, compose or record their music in stereo - it's purely the format that comes out at the end of a long creative process. Many studios use sixty four - or more - separate tracks on which to record all the sounds that go into the final mix, but they end up squeezed into two simply because it's the current format.

The arrival of mass market multichannel gives producers more space for creative expression, letting...
them make a more expansive and enveloping wall of sound.

While not every casual listener will want six speakers in their living room, the pill is sweetened by the difference they make to enjoyment of DVD video. With all the hardware already in place (DVD-A player excepted), it's a small progression from multichannel movie soundtracks to music in surround sound.

Because they’ve been almost exclusively designed to play the Dolby Digital soundtracks of DVD movies, multichannel music systems haven't generally sounded too good up to now. This however is changing. Already, products from Meridian, Linn, Naim, TAG McLaren, Arcam, Cyrus, NAD, Primare and Marantz - to name but a few - have begun to transform the situation.

AFFORDABLE SURROUND-SOUND

Here are some audiophile surround-sound systems at sensible prices.

If you want a to get a foot on the surround-sound ladder the simplest and cheapest option is to get an all-in-one AV receiver. They have a processor for Dolby or dts decoding, multichannel amplification - normally five channels plus a subwoofer channel (used mainly for movie soundtracks) - and a tuner in one box. Intended for film soundtracks, quality isn’t brilliant but there are models that offer acceptable results for music. The same goes for loudspeaker packages. In general, buy respected hi-fi brands, or you will end up with AV quality. You’ll also need extra cabling, including decent interconnects for analogue connection from an SACD or DVD-A player and extended runs of ‘speaker cable from the receiver to the rear channel speakers. Bear in mind the rears will carry full bandwidth signals, so ideally they should be the same as the front speakers, not something you found in the loft. The front centre may carry vocals or drums, so again quality needs to be top dollar.

You must hook up a TV to see what is on a disc, preferably using a Scart cable for best picture quality when watching video. Here are our recommendations for a first time surround-sound system.

**SOURCE**
It's worth considering a 'universal' DVD player that will play DVD-A and SACD as well as movies, but these usually don’t come cheap. However, there is one brilliant budget option that we recommend without reservation.

**RECEIVERS**
You’ll need a six-channel analogue input on the receiver. This is essential for DVD-A (although DVD-A discs have Dolby Digital you may wish to use analogue connection) and SACD playback. The following all feature this facility.

*The £400 Pioneer DV656 is the best all round machine for the money.*

**Pioneer DV656 £400**
Without doubt the best all round buy on the market and consequently the only viable budget option. £400 gets you DVD-A, SACD, CD and DVD-video playback. There’s on-board decoding for Dolby Digital (movies and DVD-A) and analogue outputs for multichannel SACD playback. In other words, it's got everything.

**Denon AVR-1602 or AVR-1802 £350/£450**
These two entry level receivers offer great value for money. Both decode Dolby Digital and DTS (with the 1802 also offering Dolby Pro Logic II). The 1602 offers 70 watts per channel and the 1802 80 watts.
Marantz SR5300 £450

The Marantz SR5300 excels in both surround and stereo and is packed full with features.

This is another budget option to consider for stereo playback as well as surround-sound. Marantz are well grounded in audiophile quality products and the SR5300 offers both Dolby Digital and DTS decoding plus DTS ES and even ProLogicII at a very competitive price. Power is rated at 90 watts per channel.

NAD T761 £650

Another good all rounder that offers good hi-fi stereo playback. The T761 is powerful, at 80 watts per channel and will decode Dolby Digital and DTS soundtracks.

'SPEAKER PACKAGES

ALR Jordan Entry 5.1 system £900

The small and discrete 'speakers are compact and well engineered in true German style. The sound is very good - full and detailed - and the system comes with a decent subwoofer, too.

Mission m72 system £400

With bi-polar rears, this is more of a home cinema choice but it also does the job with music. It consists of m72 speaker for the front, the m7 centre channel 'speaker and the rears. The main m72 front speakers offer superb insight, imaging and a big out of the box sound. No subwoofer is supplied.

Wharfedale Diamond Cinema £400

This system is excellent value for money and is superb with music. There are plenty of good value options in this category. The following are good hi-fi 'speakers that will work well with DVD-A and SACD. Some offer a subwoofer inclusive - others give you the option of buying separately. Then you can go for a real cracker such as the tiny REL quake at £300.

The Wharfedale Diamond Cinema system offers exceptional value for money and is superb with music.

If you buy a shiny new surround-sound system, what sort of improvement in sound quality can you expect?

Generalising, DVD-A gives the same sort of delivery as CD, only cleaner, harder and more dramatic. What we are talking about here is recordings made at 24bit resolution and 48kHz sampling rate or - better - 24bit resolution at 96kHz sampling rate, because at present that's the best you'll get from DVD-A.

Not everyone will necessarily take to the challenging sound of DVD-A, often termed 'multi-bit' to distinguish it from SACD's Direct Stream Digital (DSD) coding scheme. It is like super clean CD on steroids - providing the original recording is good of course. Also, it takes a very good hi-fi system, well balanced, to really resolve the extra dynamic drama and cleanliness of 24/96 recordings. Because DVD-A has razor sharp transients with real leading edge power, with loudspeakers whose response extends well past 20kHz it sounds glassy bright too.

There's nothing easy and sweet about typical DVD-A, but imaging is superb, there's no treble grit and vagueness, dynamics can press you against the wall and detailing and (stereo) stage depth are awesome. It is worth having - and even old analogue recordings such as Deep Purple's Smoke on the Water sound fantastic.

Sony and Philips support rival SACD (Super Audio CD) format. SACD does sound very smooth and natural and, like DVD-A, it is very clean, although not so hard and challenging. With CD player compatibility (dual layer discs) and a wide range of interesting material, including Rolling Stones back catalogue, SACD can't easily be ignored. Vinyl buffs may well prefer SACD to DVD-A and, bear in mind, most SACD players also play OVO videos, including their Dolby Digital surround-sound track, so you can still play DVDs.

Both DVD-A and SACD are surround-sound formats. However, DVD/SACD players mix down to provide stereo, so you can get better sound quality without all the boxes, if you want.
Are you one of the growing number of two channel hi-fi fanatics thinking of expanding? Simon Pope and David Price discover a painless and effective way for the audiophile to go multichannel as they encounter the TAG McLaren AV30R processor and 100x5R power amp.

The TAG McLaren AV30R-100x5R reviewed here is no bargain basement affair, but at £4,794 it is theoretically within reach of mere mortals with mortgages, or should that be re-mortgages.

A relatively minimalist 5.1 channel AV preamp processor, it boasts two video switchers (one for Composite and one for S-Video), both offering one output with on-screen display and one without.

There's a wide range of options, including a DAB card and the 'multi-device' TAGtronic Bus for integration with other products and software upgrades. The partnering 100x5R power amp is essentially five identical monobloc power amp modules in one single enclosure, each containing its own mains transformer, bridge rectifier and energy storage capacitors. A great feature is its upgradeability - the amp may in fact be ordered in either two, three, four or five channel guise, with many further modules fitted when funds allow. All amplifier functions (including muting and protection) are managed by a 16bit Siemens microcontroller, and there's even a remote control to lose!

Inside, it's neatly laid out with the latest surface mount technology and a liberal sprinkling of audiophile-grade Vishay resistors and Wima capacitors. Gold-plated Oxygen-free high purity copper (OFHC) loudspeaker binding posts complete the picture round the back.
The AV3OR has all the inputs and outputs you need for high-end surround-sound.

The pre and power amps look great together, and there's no denying the superb build and finish. The AV3OR's clear display is particularly worthy of note - it even functions as Digital Radio tuner window when the optional (£699) DAB card is fitted.

Thanks to TAG's excellent Setup Wizard it's easy to configure - a clever "question and answer" system will have even AV novices up and running easily.

Suitably set up, the amplifiers really sing. They possess a distinctively clean and open nature which lies right between the ultra tight and punchy Naim sound and the warmer, sweeter strains of products like Marantz's PS177SM17 combination.

TAG's supplied remote is the weakest part of the package. The on-screen display is good enough, but this sad bit of plastic doesn't make navigating through its menus and sub-menus any easier, but all the bells and whistles are there in abundance.

PLAY TO WIN

Starting off with the TAG McLaren combo's analogue attributes, Brian Eno's Before and After Science on ye olde sixteen bit CD comes through with superb clarity - the original recording's analogue warmth is there for all to hear. Switch to a serious slice of drum 'n' bass in the shape of Spiral's Solitaire and you're instantly struck by how the sound changes, the TAGs matter-of-factly revealing the striking differences between the two studio's respective sonics. The gentle upper mid-band warmth of the Eno disc is substituted for the ultra clinical and incisive sound of the latter Metalheadz release. This kind of "hear through" transparency is relatively rare - even at this price, and makes this combo a brilliantly clear window on the world.

Donald Fagen's The Nightfly DVD-A feeding its 5.1 analogue input was a joy. Bass is decently tuneful with plenty of power and no signs of strain even at very high volumes. It isn't the warmest or most sumptuous of bottom ends, but it's firm and strong enough to give the TAGs a very powerful and authoritative feel.

This follows up into the midband, which is extremely tidy and well ordered. The TAG can huff and puff with the best of them, delivering fantastic wallapop on large dynamic transients. It's not quite as agile in communicating those tiny accents and inflections that give music its sense of intricacy. These amps serve up a brilliantly atmospheric and "airy" top end. Hi hat cymbals are superbly carried, without a hint of hardness or coldness, yet retain a brightly lit steely ring.

Feed the AV3OR's digital inputs with the newly remastered Dolby Digital soundtrack from The Wall and you're in for a treat. That Pink Floyd soundtrack sounds as emotive and profound now as it did some twenty three years ago. The 100x5R's monobloc architecture makes for an extremely spacious surround soundstage, with vice-like grip on the location of instruments, vocals and effects within the multichannel mix. Its sheer scale is undeniably impressive, with tremendous amounts of power in reserve. This was shown by an extremely powerful and tight performance of Rage Against The Machine's live DVD 'Battle Of Mexico City'.

Purity, clarity and realistic dynamics were the order of the day with the Dolby Digital soundtrack of Bruckner's 8th Symphony with the Vienna Philharmonic conducted by Boulez on an excellent TDK DVD-video disc. However, not only is it impressive in these clear cut hi-fi terms, but the sound ebbs and flows in an involving and musical way.

A deeply impressive combination, then. We would say that the AV30R, given these ninetenths of the sound of its more expensive AV32R bigger brother, which is borne out by the quoted measured performance, which only shows a minor degradation of signal-to-noise ratio (102dB vs. the AV32R's 104).

The only criticism is that if you buy all the options for the AV3OR - well, you might as well have the AV32R. The 100x5R is simply a barrel of energy!
chest, no-nonsense powerhouse that's up to the job of keeping the AV3OR company. Its flexible, modular design and gorgeous looks only sweeten the deal further. Together, this combo represents a serious challenge to its class-

MEASURED PERFORMANCE

With a peak level (0dBFs) digital input, a volume setting of "0.0" on the AV3OR's display yields an output of 1.5V. A more typical 2V output is achieved at a setting of "+2.5" where jitter is spectacularly low at just ~90psec with 48kHz/24bit data (blue trace, Graph 1) and ~40psec with 96kHz/24bit data (red trace, Graph 1), provided the £300 're-timing' option is fitted. However, the crystal-based PLL requires over 10 seconds to settle when switching between sample rates in order to achieve this performance, before which jitter remains a high ~3100psec. Distortion also increases very slightly from 0.0045%/0.0065% at 1kHz/20kHz with 48kHz data to 0.006%/0.009% at 1kHz/30kHz with 96kHz data, respectively, although this is on a par with the matching power amplifier (see below). McLaren admits that the use of a CODEC for rear, surround, centre and sub channels cannot match the ultimate performance of the two-channel 24bit/96kHz-capable DAC specified for the front channels. Nevertheless, the 94.5dB A-weighted S/N achieved by centre and rear channels is acceptably short of the 99.5dB measured on the front outputs and is unlikely to exert too obvious a subjective penalty. The Dolby responses are revealed on Graph (2) while 96kHz PCM digital inputs extend out to -2.6dB at 45kHz. McLaren's proprietary Bass management is particularly adaptive, to the extent that mixed-bass channel levels are dynamically limited with increasing volume to prevent premature clipping. Clever stuff, and no mistake. The multichannel power amp is considerably more powerful than its 100W moniker might suggest. In stereo mode, it achieves 2x270W. Distortion remains very low indeed at 0.001% or less through the midrange at anything up to 100W/8ohm (see Graph 3). However, distortion does increase at higher frequencies (where there's less compensation available) to 0.007% at 20kHz and 0.009% at 30kHz, particularly once the amplifier has been driven for an hour or so and thoroughly warmed-up. Nevertheless, it must be said that few amplifiers enjoy distortion as low as this at these sorts of frequencies. Because each amplifier 'module' is built to precise standards, they each have exactly the same distortion, response and noise characteristics. Channel matching is to within 0.04dB and separation better than 90dB at 20kHz between modules. The response of each module has a gentle HF roll-off, beginning with -0.25dB at 20kHz but reaching just -0.5dB down at 100kHz. This is a subtler roll-off than might be expected from an SACD player, for example, so the amplifier may still be considered both 'widebandwidth' in addition to extremely load-tolerant. These are highly advanced designs, destined for very modern, upmarket systems.

AV3OR PROCESSOR

Frequency Response
48kHz LPCM 0.0dB (20Hz) to -0.1dB (20kHz)
96kHz LPCM 0.0dB (20Hz) to -2.6dB (45kHz)

Distortion Front Surround
-6dBFs 0.004% 0.004%
-30dBFs 0.002% 0.002%
-60dBFs 0.12% 0.13%
-90dBFs 2.8% 2.9%

Noise (IEC A) 99.5dB 94.5dB

Output 2.02V 1.99V
(Vol = 2.5)

100 X 5R POWER AMPLIFIER

Power 5 x 155W

1kHz 105dB 104dB
20kHz 95dB 96dB

Separation 1kHz >90dB

TAG McLaren Audio AV3OR preamp/processor £1,799
TAG McLaren Audio 100X5R power amplifier £2,995

TAG McLaren Audio
www.tagmclaren.com

World Verdict

Expensive, but of superb quality, with a powerful and transparent sound, the AV3OR and 100X5R combination is a fine way to move up to multichannel.

www.hi-fiworld.co.uk APRIL 2003 HI-FI WORLD & COMPUTER AUDIO
David Price listens to Linn's tight and taut new 2250 power amplifier.

Few companies inspire as much brand loyalty as Linn Products, so the advent of a new high end power amplifier from the Glasgow boys is bound to arouse interest. And given that the company's product range has changed dramatically — the balance shifting away from dedicated two-channel stereo to more life-friendly, multi-room and home theatre applications — many will be particularly curious to see what Linn can do when venturing back to its 'home-land' of conventional hi-fi.

The intriguingly named 2250 (any reference to Naim's 'evergreen' amp in there?) is a sleek looking piece of kit based on the company's 5125 five channel 'home theatre' powerhouse. Using 'new integrated technology' and Linn's beloved surface-mount componentry, plus the company's de rigeur switch mode power supply, it is claimed to produce 125W RMS per channel into 8Ω (rising to 230W into 4Ω). Linn boasts that it is "unconditionally stable into all loudspeaker loads"...

Very much in the idiom of a modern 'noughties' power amp, the 2250 is a clean, small footprint design that won't frighten the Missus or bend the floorboards. It measures just 75x381x354mm and weighs a waif-like 5.25kg — much of the reason for its petiteness is of course the use of a switched mode power supply which obviates the need for a frying pan sized toroidal transformer. It's a neat visual match for the Klimax Kontrol, and I actually quite liked not having to give up large expanses of my room for my music — for once.

The 2250 doesn't possess vast expanses of heatsinking metal fins. Rather, two internal thermostatically controlled cooling fans whirr away, producing the same sort of noise as a notebook PC cooling fan when the going gets hot. They are actually fairly audible in isolation — but by the time they've cut in then things will be getting seriously loud and I couldn't really hear them in practice.

Automatic signal sensing for remote power switching, plus user-selectable inputs for unbalanced and balanced operation and unbalanced and balanced output sockets for daisy chaining make this a very flexible product.

This power amplifier can also be configured for bi-wired operation and for multiamping in passive and active modes with additional 2250s — I can imagine this working very happily, say, with two or three more 2250s as part of a high-end multi-channel system. Linn says that the 2250 also accepts internal Linn stereo AKTIV cards for playback with Linn AKTIV loudspeakers. Multi-room operation is possible, serving as the main or as a local room amplifier.

From cold, the 2250 is not a good performer — indeed, I found it needed more than a few days of use before it really felt able to stretch its legs. Suitably burned in and warmed through, I sat down to finally use it in anger. The first few bars of Propaganda's 'P-machinery' raised a smile, on account of the fact that I found myself hearing precisely what I'd expected. You've got to hand it to Linn — it sure knows how to design products with a distinctive house sound!

The amplifier I'd just come from was Musical Fidelity's A308, a £1999 integrated which I was using as a power amp (via its AUX 2 input, which bypasses the preamp completely). Those aforementioned couple of bars, featuring a sequence of sampled 'mechanical' noises, took on a completely different significance. With the MF it had been a few 'banging' sounds, but the Linn turned it into music, extracting a coherent rhythm from what I'd previously thought to be a sort of 'lead in' sound effects sequence. Therein lies the appeal of the 2250.

Indeed, its presentation proved dramatically different to the MF, in both positive and negative senses. The good news was that it made whatever music it played into something rhythmically coherent and engaging, regardless of the source.
material. Next on was Motorhead's 'Overkill', one of the most scratched, beer-sodden, cigarette scarred pieces of vinyl I own (shurely shome mistake!) So 'distressed' is this disc that it's more 'no fi' than 'lo fi', but once again however, the Linn cut through the mustard to communicate the fact that there was a rock band under all that surface noise, bashing it out like only Lemmy & Co. can. It didn't sound nice, but it sure was fun - a bit like the band itself, in fact...

Moving to Randy Crawford's 'Rainy Night in Georgia' and this amp threw out a welter of detail, proving particularly capable at stringing all the small percussive elements together, not to mention the singer's vocal phrasing. No less enjoyable was the blink of an eye - make no mistake, this is a fast, lite amplifier. Factor in its very taut, sinuous rhythms and you have the classic recipe for - the Linn house sound!

Bass was very tight - not quite in the Naim NAP250 class I'd say - but sufficiently vice-like to keep my Yamaha NS1000M bass drivers in check. The MF by contrast sounded a touch slower and more plodding, but was able to serve up considerably more grunt. Although Linn claims great things for the 2250, the impression I got was not of a particularly muscular amp - it went loud, but the MF went rib twistingly loud and seemed more happy with it, too. The latter's tonal warmth in this area no doubt contributed to this impression, whereas the Linn proved particularly parsimonious in this department.

Moving up to the midband and treble and here my reservations with the 2250 present themselves. Although it's undoubtedly fast and fun to listen to, I found its tonal colouring - or lack thereof - a particular disappointment. Whereas the MF was able to give you a 'feel for the recording studio and instruments within, the Linn was so dry it almost feels like listen to 'outlines' - you could hear when each note started and stopped in relation to one another, but what was inside was oh-so uninteresting. The aforementioned Randy Crawford song is a showcase for her stunning voice - although we got all her phrasing from the 2250, that incredibly rich, full timbre of hers was lost. Having heard her live, I felt as if I was listening to a 'black and white' photocopy.

This is my problem with this amp - although the MF wasn't quite as bouncy, it gave a far better impression of the recorded acoustic, whatever that may be. Guitars may have been less rhythmically snappy, but you could hear the tone of a Rickenbacker better. The 2250's tendency to paint 'generic' tonal colours was most obvious in the treble, where it was fast - of course - but lacked any real sense of air, space or ambience, Charlie Watts' hi-hats on the Rolling Stones' 'Emotional Rescue' sounded pretty much the same as Filthy Animal's on Motorhead's 'Overkill'. See what I mean?

Linn's new 2250 power amp gets a cautious recommendation then - it is in some ways immensely capable, but in others rather mediocre. The point is that you can decide for yourself, via Linn's excellent dealer network. Many people will love it, but others will be seriously underwhelmed. So go and have a listen yourself, and see what you think.

Linn 2250 £1975

Linn Products
Tel: +44 (0)141 307 7777
www.linn.co.uk

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**MEASURED PERFORMANCE**

As Linn power amps go - and as modern designs go in fact - the new 2250 came as a surprise. It produces quite a lot of distortion - as much as 0.5% under difficult conditions, an amount that is way above the norm, of around 0.05%. The spectrum remains consistent under all conditions, including load, power and frequency variation - a good sign. Also, the spectral components were lower order and fell away quickly and smoothly, much like a valve amp. I don't think Linn are about to mimic the valve sound, but it does appear that they've decided to trade low distortion figures for something else in this model.

- Plenty of power was available into both 8ohms and 4ohms, with figures of 105watts and 196watts respectively.
- Power nearly doubles into 4ohms so supply regulation is exceptional: there should be plenty of slam to the sound.
- With a slightly curtailed frequency response too I would expect this Linn to sound milder and richer perhaps than those that have gone before it. Distortion at high frequencies may grey the treble a little. NK
- Power 105watts
- CD/tuner/aux.
- Frequency response 11Hz-33kHz

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**World Verdict**

Lovers of the Linn sound will find this a fine buy, but others will crave a more balanced range of strengths and weaknesses.
HIGH RESOLUTION JITTERS

Having read your recent articles on DVD Audio, I have to say I've actually tried the format (having had a player for almost two years now) and have found that several of the theoretical benefits you describe are just not being delivered on the actual discs.

For a start, almost none have the "full 24/192 smash" as you describe it. Even dual layer discs are often 24/96 for both stereo and surround, and my listening experiences suggest that 24/96 is only a little better than CD; it's 24/119 that's the real jump.

Secondly, the practice of including only Dolby Digital data-reduced remixes and/or PCM stereo in the DVD-V compatibility sector, means that playback of DVD-A discs on DVD-V players (especially via stereo mixdown) is probably inferior to the equivalent CD on the same player!

Thirdly, David Price's observation that "DVD Audio works just like CD - you put the disk into the machine and it plays" is simply NOT TRUE unless the sound format you want happens to be in the default chapter - otherwise it's video menus, button pushing, and sometimes playback of material you don't want if your player doesn't have "current chapter only" set, or you leave the disc in the player at the end and get caught by a programmed "timeout default" autoreplay you don't want.

There is no doubt that those responsible for DVD-A believe, as you suggest, that it will be sold on "surround sound" rather than higher resolution stereo; but as Noel Keywood points out in his column in the same issue, the quality of the kind of surround systems being pushed to ordinary households is "so poor it wouldn't normally be considered hi-fi". What's the point of higher quality software if budget buyers (most people in the real world) will end up playing it through six speakers worse than their old stereo pair, maiming their CD and LP collections in the process.

Finally, there are the surround mixes themselves; no doubt the state of the art will mature and settle down, but at the moment classic albums are being remastered with every mistake made in the move from mono to stereo plus some. Just listen to the producer of the Eagles' "Hotel California" DVD-A: "there were four guitars so we put one in each speaker". Since when did The Eagles, or any other band of the period, perform, or even conceive of performing, any way but in on a stage in a line in front of the audience?

I have no objection per se to multichannel, when the artists themselves are aware it can happen and/or supervise the remix, but there are just too many bad decisions being made at every stage of the DVD-A process (almost certainly by marketing people who don't actually use the product they're selling) for it to be anything but a pass for me at this stage... 

Dave Lock

Right now, you're correct to say that most DVD-A releases are 'only' 24/96, but this is obviously not going to be situation in the medium to long term. Senior music industry figures have assured journalists that the intention is to roll out more and more 24/192 discs as studios and remastering labs become thus equipped. In the great scheme of DVD-A, the present situation should be considered an aberration and not the norm. In this respect, the move from mono to stereo LPs is a good parallel.

I'd disagree about 24/192 being the real jump from CD, and not 24/96. The sampling frequency does nothing more than determine the bandwidth, and although the advantages of having an ultra wide frequency response are undeniable (not least because it pushes the PCM digital coding system's 'difficult' upper range way, way out of the range of the audio band), they're not the be all and end all. The bit depth determines the general quality of the sound (detail, dynamics, resolution, distortion, etc.) and this is the key - in my opinion - to DVD-A's enhanced quality. I think as so-called 24bit converters get closer and closer to real 24bit resolution, rather than the 19-20bit resolution which they're often said to possess, this point will become all the more salient.

Point taken about the Dolby Digital track. It's not a wonderful sounding codec - it has a frighteningly low bitrate (not much higher than that of MP3) and isn't famously sweet and natural. That's why it's useful to seek out DVD-A or DVD video discs with DTS mixes - this is agreed by many industry figures (Dolby Labs notwithstanding!) to sound far sweeter. I'd concur. I think the Dolby Digital layer on DVD-A discs was a kind of 'belt and braces' measure; an attempt to sell a high resolution disc to those without the players to play them, in the expectation that the next machine they buy will be able to play them! Essentially, many music industry figures want DVD-A on every DVD player as soon as possible. When it only costs an additional twenty cents per player 'soon' is when it will happen.

I think there's also the issue of copying. This is clobbering the music biz right now and as a result it would far prefer you bought your music on DVD-A rather than CD (hence the new releases are supposed to be priced identically). Obviously, anyone with a half decent PC can spin off a copy of a CD in five minutes these days, but that facility doesn't exist for DVD-A discs - yet!

Regarding the AutoPlay feature - you're right, but only as far as early discs are concerned. All the new ones coming out now are said to be authored in such a way that they play automatically if you open the drawer, insert the disc and hit the 'play' button. The drawer will close and the disc should commence playing from chapter one.

You're also right to ask 'what's the point of DVD-A if it's wasted on most people?' As my recent feature pointed out, it's as much an attempt by the music industry to grab back
As the number of DVD-A titles increases, so will the quality of them.

SOURCE THE PROBLEM?
HI HFW!
First a top tip to Hi-Fi World: The "World favourites" recommendation guide seems to have not been updated since July 2000. Surely some new products that you have tested the last 2.5 years are good enough to be included? I totally support and understand that it should not be updated too often, as I do

not believe (like some other hi-fi magazines) that the best in class changes every month. I would however expect changes at least twice a year. I therefore propose that you set up two meetings for 2003 when you review the World favourites. I think that having an up to date guide may actually increase your sales, too.

Now hopefully a top tip to me: I want better sound but have no clue what to do. My current system consists of Sony CDPXB-930E, Linn Intek, EPOS ES11, Van den hul Storm Gold Interconnect (£30), QED Silver Anniversary speaker cable (single wired), Henley Stand design equipment rack, and some various AV components (Yamaha DSP-E800, Toshiba SD220E, Mission 77DS and Tannoy MC Centre speaker).

I am quite happy with the sound of my system and like that it is very detailed and analytical, but I’d like it to have more dynamics and scale as well. It could also be more engaging as I feel that I have to crank up the volume or sit closer/between the speakers to get the sound I want. The system has the right tonal balance and it does not sound too bright but could have a tad more bass - not a lot though since I am not a bass freak. I have however not a clue what to change to get an improvement, especially without losing the current detailed and analytical sound that is really priority No 1. Of course an improvement in these areas would be highly desirable as well. I listen to music that is normally well produced like Chemical Brothers, Underworld, Depeche Mode and Jesus and Mary Chain...

I bought the Sony two years ago thinking that I would buy a DVD-A/SACD player for around £700 in the future to replace it, but none has tempted me so far due to limited software availability. I would like to wait to replace my Sony with a new player as I think it is still OK and I would instead like to go for a DVD-A/SACD player within the next 2-3 years. Could you please advise what to do until then and if it would help by changing the amp to something like Roksan Kandy/Gyrus 5 or 6/NAD C370 or a secondhand Naim Nait 3 or 5, or perhaps a Linn Kolektor/LK85? Or should I look at other alternatives?

Also, would it help to upgrade the interconnect to say DIN Reson Bullet or some other interconnect?

Upgradability is also considered as a plus. My budget is not fixed but I would hope to spend between £400 to £600 and I can consider buying secondhand. If I need to change the CD player to get the sound I am interested in, could you please give some second hand alternatives, like for example Marantz 6000 KI Sig.

Best regards
Paul Bjernklo
London, UK

Hi Paul. Point taken, it’s something we’re aware of and are making plans as I write to have the ‘favourites’ section well and truly updated.

Now onto your little ‘problem’. As far as your source player goes, if you don’t want to replace the Sony for a while, then don’t. The Sony mechanisms in all the players are built to last and deliver a rhythmically solid (if a tad harsh) sound. There’s very little around to match them in this respect and you wouldn’t really gain any massive benefits from spending a slice of your already precious £400-£600 on a new but not necessarily better CD player. Instead, you’re right to look to the amp and cabling. Presuming you want to get the best possible audiophile sound then don’t combine your AV and two channel systems together; keep them totally separate at this level.

As far as amps are concerned there are a few possibilities worth investigating. For grip and excitement look to Exposure’s 2010 integrated, which is priced around £600 new. This is deceivingly powerful and controlled and whilst perhaps not ultimately refined, then still very exciting yet warm sounding.

For extra refinement and more audiophile traits such as depth of field, imaging and detail with smoothness then scour the classifieds or internet for a secondhand Audio Analogue Puccini SE (pre-remote version). This is still very much a classic midprice integrated that
90% of our customers prefer our "warm and old-valve" sound to their expensive transistor preamplifiers & power amplifiers. We have a signed testimonial to prove that one customer prefers £1,000 "EL34 Lim Signature" to £2,600 preamp / power amp/power supply made by a famous name.

Do you need further proof that price is not a substitute for the "valve sound"? Money refunded to 10% of customers who prefer transistor amplifiers. Money back guarantee (less £30 return carriage, within 1 month) that our valve amplifiers deliver clear sweet treble, without harshness, from CD players:
- 100% fatigue free
- Sibilance on female voices is well controlled and greatly reduced.
- "His" sound like 'His' and not 'Hissssssssk'
- Singers accentuation and accents become blatantly obvious
- Random background noise/crossover distortion disappears, creating an inky black silence, so you can hear quiet notes, breathing noise, artificial reverberation, etc
- more powerful bass slam than most transistor amplifiers and most Single Ended amplifiers

More bass

Money back guarantee (less £30) that you prefer our £1,000 or £1,450 "KT88 Triode Connection" valve amplifiers to most transistor amplifiers, most transistor / valve hybrid amplifiers, most Single Ended valve amplifiers, most Ultra Linear valve amplifiers selling for £2,000 to £20,000.

"Proper" Triode Push Pull valve amplifiers should sound better, so they are excluded from our Money Back Guarantee. However, they cost £6,000 and upward.

Price is not a guarantee for sound quality. Some products are overpriced and pretentious.

Telephone 01634 268662 anytime or 01634 373410 for Mr Andrew Everard's review in Gramophone Magazine and Summary of 18 testimonials from satisfied customers + www.affordablevalvecompany.com + Amplifier shown without CE safety cage, to prove that this is a genuine valve amplifier. Customers must not remove the CE safety cage.

Free delivery to U.K. Subsidised £50 UPS delivery to other countries. Return carriage for Money Back Guarantee is £30 for U.K. £100 for other countries.
amazes at the price with its high-end traits combined with drive.

Lastly, on the amp front I recommend you get a listen to the new Cyrus 8 integrated. Like the Puccini SE, this is a midpriced amplifier that delivers superb depth of sound and detail found in much higher priced products. As well as its rich sound it has great facilities and complete electronic switching. It’s also the best bet for upgradeability; by adding a PSX power supply you take the sound into a different league altogether and you can always add on the upcoming Cyrus power amp(s) using the 8 as a preamp.

Finally, cabling. Look to the very fine DNM Reson or Chord Company Chameleon for interconnects and Reson again, or Chord’s top of the range but excellently priced (£17.99 per metre) Odyssey 2 for loudspeaker cable for a relatively affordable but highly effective upgrade. SP

YOU ARE THE WEAKEST LINK, GOODBYE!

Before asking my question I would like to thank you for the most varied and entertaining read available on the hi-fi scene.

At present my set-up consists of Linn sources (Karik III and LP12/Lingo2/Ittok/Ortofon MC15 Super) Naim amps (72/HICAP/180) and Belgian SynthSe speakers (very neutral if a little laid back).

I am thinking of changing the 72 which for me is the weakest link. As I also have a projector, big screen and Audiomeca DVD I wonder whether a NAIM AV2 would be capable of doing both DD/DTS duties and making a decent stereo preamp? None of the reviews I have read really comment on stereo performance of the AV2! If I took this particular route I would of course need a phono stage. Given a budget of about £1,000 what should I be listening to besides the Linn Linto?

Yours,

Nigel Briggs

Good question Nigel. I reckon the AV2 would not be a dramatic improvement (if at all over your NAC 72). It’s a fine preamp, but more of a ‘sidegrade’ than an obvious step up from what is a perfectly good stereo preamplifier. However, if you’re sure you want to move from two channel to multi, then without doubt the AV2 is the way to go. It does DD and DTS brilliantly and fulfils the multi-channel role with style.

But if two channel analogue stereo sound is your priority then I think you could do worse than fit a Super-Cap (£2,293) to your 72 in lieu of the Hi-Cap (which you could always sell for a healthy sum). This would bring greater grip, focus, smoothness and low level detail, and really tighten things up at the front. You can, of course, subsequently keep it should you wish to move over to an AV2 at a later date, anyway.

Personally speaking, I’d say your preamp isn’t the largest limiting factor. I think your turntable could usefully be upgraded, assuming of course it’s your major music source. First, make sure the deck has had the Cirkus mods, then think about a new Linn Ekos or a Naim ARO tonearm. The former is more musical and powerful sounding, the latter astonishingly fluid and beguiling. Either arm could then be usefully upgraded by an Ortofon Kontrapunkt B (my current fave mid-price MC) or a Lyra Lydian Beta.

As for phono preamps, the Linto is a class act but I’d also audition the new Trichord Delphini II, which is probably the one to have under £1,000 right now. If money’s tight then stay with the Tik-Tok but fit Linn’s new T.Kable, the new arm lead supplied with Ekoses from last Autumn. Similar to the current Linn Silver Interconnect cables but with different outer sheathing that doesn’t upset the suspension, it’s rumoured to be well worth the smallish outlay. This, plus a Dynavector DV20X-L, would do the job nicely for under £400.

CARRY ON UP THE KABERS!

I had some problems driving a pair of Linn Kabers to moderate volume levels. However, I acted upon advice I found in your magazine which led me down a very interesting path (I had a NAD C370/C270 combination, Linn Mimik and of course Kabers, the amps in your opinion being the problem.) And so off I went to a couple of dealers, Kabers in hand, to listen to some Naim opions, Musical Fidelity’s A308, as per your recommendations, and I also listened to the Primare A30.2 and some Arcam gear. The only amp which did it for me was the A308 which managed to push the Kabers to nice levels without running out of puff.

Before I parted with the two grand required, my dealer suggested that I listen to the Nad Silverline pre/power combo which he unfortunately didn’t have in stock but said he could get for me. This lead me to contact NAD’s UK offices to try and find somewhere to demo the Silverline pair.

I was lucky enough to find myself talking to one of their sales team who was insistent that the way forward was to bridge my existing amps! He very kindly fixed me diagrams of cabling up the amps and speakers and reminded me that this was a try as it was free. Well, blow me down with a feather! I couldn’t believe what I was hearing, the soundstage was huge and the power seemed effortless with absolutely pristine clear sound right up to the volumes I like. It also has increased detail somewhat. I then sold on the C370 integrated and have replaced it with a C160 pre and another C270 power which has further enhanced the sound (reduced sibilance and even more detail).

Now I know you may not condone my chosen path but trust me it has worked. What I want to do now is upgrade my Mimik to something a little newer, so once again need some help (I promise to listen...honest!!!) My criteria is as follows...lots of detail, black if possible, up to £1,500, second-hand not a problem. What do you think? Many Thanks

Dave Mayer

Who said we wouldn’t condone what you’ve done - it sounds a superbly ingenious and economically advantageous solution. I’m now kicking myself that it wouldn’t automatically occur to me to suggest it! The NAD amps, throughout the range, have power and depth aplenty and bridging the lower cost items, such as you have done, would definitely add more refinement as well as power to the equation. And good on NAD’s UK distributors, Lenbrook, for suggesting it!

As far as replacing the Mimik is concerned you have options aplenty. My instant answer would be to give a listen to Meridian’s smooth and detailed 507 CD player at £1,200. This is superbly engineered for the money and delivers a sophisticated and highly detailed sound. It’s inherently smooth and sound is your priority then I think I would do better than fit a Super-Cap (£2,293) to your 72 in lieu of the Hi-Cap (which you could always sell for a healthy sum). This would bring greater grip, focus, smoothness and low level detail, and really tighten things up at the front. You can, of course, subsequently keep it should you wish to move over to an AV2 at a later date, anyway.

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I had some problems driving a pair of Linn Kabers to moderate volume levels. However, I acted upon advice I found in your magazine which led me down a very interesting path (I had a NAD C370/C270 combination, Linn Mimik and of course Kabers, the amps in your opinion being the problem.) And so off I went to a couple of dealers, Kabers in hand, to listen to some Naim opions, Musical Fidelity’s A308, as per your recommendations, and I also listened to the Primare A30.2 and some Arcam gear. The only amp which did it for me was the A308 which managed to push the Kabers to nice levels without running out of puff.

Before I parted with the two grand required, my dealer suggested that I listen to the Nad Silverline pre/power combo which he unfortunately didn’t have in stock but said he could get for me. This lead me to contact NAD’s UK offices to try and find somewhere to demo the Silverline pair.

I was lucky enough to find myself talking to one of their sales team who was insistent that the way forward was to bridge my existing amps! He very kindly fixed me diagrams of cabling up the amps and speakers and reminded me that this was a try as it was free. Well, blow me down with a feather! I couldn’t believe what I was hearing, the soundstage was huge and the power seemed effortless with absolutely pristine clear sound right up to the volumes I like. It also has increased detail somewhat. I then sold on the C370 integrated and have replaced it with a C160 pre and another C270 power which has further enhanced the sound (reduced sibilance and even more detail).

Now I know you may not condone my chosen path but trust me it has worked. What I want to do now is upgrade my Mimik to something a little newer, so once again need some help (I promise to listen...honest!!!) My criteria is as follows...lots of detail, black if possible, up to £1,500, second-hand not a problem. What do you think? Many Thanks

Dave Mayer

Who said we wouldn’t condone what you’ve done - it sounds a superbly ingenious and economically advantageous solution. I’m now kicking myself that it wouldn’t automatically occur to me to suggest it! The NAD amps, throughout the range, have power and depth aplenty and bridging the lower cost items, such as you have done, would definitely add more refinement as well as power to the equation. And good on NAD’s UK distributors, Lenbrook, for suggesting it!

As far as replacing the Mimik is concerned you have options aplenty. My instant answer would be to give a listen to Meridian’s smooth and detailed 507 CD player at £1,200. This is superbly engineered for the money and delivers a sophisticated and highly detailed sound. It’s inherently smooth and...
Sony's excellent 555ES SACD/CD player. Available for much less then the original £1,500 if you shop around this has a superb transport and is awesomely well put together, resulting in true high-end build quality for a bargain price. It should last years and survive a nuclear attack, even if you don't! Sound-wise, it's slightly harder at the mid and upper ranges than the Meridian but is finely detailed and rhythmically tight, especially in the bass. Also, you can add a quality DAC as a later date to really make a supreme combination - and remember it also plays SACDs to an amazing standard.

If rhythm is at the top of your list then Naim's CDS is always a good, reliable bet at £1,150. This is an exciting and dedicated performer with none of the slight 'greyness' of the company's older entry level machines. Not perhaps the final word in ultimate subtlety but a great player nonetheless. SP

The Meridian 507 is one of the best CD choices under £1,500.

ANY TIPS FOR A RE-TIP?

I have an LP12, Linn Lingo, Naim ARO with a Troika cartridge that I bought for a jaw dropping sum of £500 the lot. The Troika is worn, which has left me with a dilemma. Do I pay the Cartridge Man £375 for a re-tip, or can you suggest some alternative cartridge to replace it that will fit straight on and need no modification (like re-drilling the ARO - god forbid)?

Hats off to Naim for a product to die for, but how do I overcome this Naim / Linn conspiracy? Is the Troika worth retipping, even though it is 12 year old technology?

Please help me, the whole set up has been locked in the attic for eighteen months. I still buy vinyl and I can't even play it! My New Year's resolution is to get this up and running.

regards

Dave Clopp

Your question of whether a rebuilt Troika will sound better than any new £375 moving coil is a good one. Hmm... depends on your point of view. I'd say that on balance, you should go for it. Len Gregory (The Cartridge Man) is reputed to do fine work, although I have not personally tried him out. The Troika was a fine cartridge and fits 'hand in glove' with the ARO. Any additional funds should then be spent on a Cirkus upgrade, which will get your Linn back on the ball - I assume that, at that price, it's a little 'distressed'. So go on - you've got no excuse now! DP

PUT A DIFFERENT SPIN ON IT

After many years of faithful service, having been acquired second-hand some 10 years ago, my Meridian Pro MCD CD player has given up the ghost. I now need to get a replacement for that empty spot on the equipment rack. Partnering equipment is an Audio

Innovations S300 amplifier feeding Epos ES11 speakers.

Listening room is on the small side - 11 ft x 9 ft. Since my last purchase (the speakers) I now have a wife and family home to provide for - so a replacement CD player needs to cost the lesser side of £500. The Epos speakers are very detailed with a revealing midband, while the amplifier - being a valve design - has typical warmth. Therefore, am I right in thinking that I need to avoid a "warm" sounding CD player?

My musical tastes are fairly varied (small scale acoustic jazz to rich late romantic orchestral) but as I really do prefer to trust my ears, audition, as I prefer to trust my ears, I do intend to try to hear. Kind regards

Neil Maxwell
Ipswich

Hi Neil. Although the 'competition below £500' as you say has been described as smooth sounding, this is basically smooth sounding as compared to the majority of entry level players, which can often take your fillings out. A nice balance is struck by the best players at the price, such as the Rega Planet, which combines attack and dexterity with an overall smoothness. This doesn't mean that the sound is veiled or overly rolled off, just that it's free from harshness in the mid and upper frequencies. For an overall 'brighter' sound for your money, the players of Sony have more 'bite' than rivals but this can prove too much in some systems, although they are very fine players and well engineered.

The very fine Marantz CD6000 KI Signature is actually quite a fast customer and not as smooth as some would make out. It has sonic depth and space as well as clout and is a fine all rounder, and well built too. This could actually be your best bet at £500 but you must listen to it in the context of your system. I would urge you to also check out the aforementioned Rega Planet, which is a very 'analogue' sort of sound and may not have the ultimate excitement you require.

One last outsider could be the excellent and often overlooked Rotel RCD-1070 which is a big sounding player with plenty of oomph and manages the great physical combination of having very solid build in an attractive slimline design.

SP

A CLASSICAL EDUCATION!

In the long and distant past (circa 1984), I flaunted my hard-earned spundolas on a state-of-the-art hi-fi system from a specialist Hi-Fi consultancy (now sadly departed) in Lytham St Annes, Lancashire. My
system was - and indeed still is - the following:

Rogers LS3/5A speakers;
Creek 4040 amplifier;
Systemdek II turntable.

That was when vinyl was still the dominant force audio pleasure and CD was a mere whisper-snooper. Over the years, I added a tape player and a CD-player and succumbed (like everyone else) to buying CDs instead of vinyl. However, I am left with about 500 vinyl records, some pretty rare, that I wish to subject my poor, unfortunate teenage daughters to, just to let them know what "real" music should sound like. This includes such classics as Camember Electrique by Gong, Live at the Budokan by Cheap Trick and the Clapton, Beck & Page compilation of the Yardbirds. I just can't wait any longer to see their little faces light up!

To cut to the chase: my turntable's knackered. Well, actually it's the cartridge and stylus. I have hunted around for replacements in my local "hi-fi" shops but they know nothing about turntables. Basically, I get one of two reactions from them: either they look at me as if I had just stepped out of the Tardis and deny that such things as turntables ever existed; or they claim they know all about them and that replacement cartridges and stylus will cost me at least two wires and a VERY large herd of goats.

Please can you help me and recommend a decent cartridge for my neglected Systemdek II turntable with a "shouldn't cost more than this" price? Also, can you let me know how much a stylus costs for the cartridge and where on earth I can get these precious things from? I live in Camberley, Surrey but it might as well be Mars. Many thanks.

Laurence Smith

Are you sure you want to do this Laurence? I think the joys of Gong maybe lost on today's teenagers, who would probably not recognise Camember Electrique as music at all. After all, it doesn't have its own TV show with the chance for the audience to phone or text in their favourite at £1 a go, does it? You'll over hear them telling their friends about their "sad Dad" who just got "his record player gram thing" fixed so he can play his 'hippie electric cheese record'. Ask yourself whether this venture will increase your street cred one jot? A better ruse would be to tell them you went to school with Mark Owen. Given that 'fools rush in where angels fear to tread', the Systemdek will need a new needle. As you neglected to mention what it's got fitted currently, and the arm for that matter, I'm assuming it had the classic early eighties combination of Linn LKVX + Basik Plus and Audio Technica AT110E, or similar. To wit, it isn't worth spending too much. I'd recommend a Goldring 1006. It's a fine starter cartridge with a big, punchy sound and has the additional benefit of being upgraded to 1042 spec by the simple expedient of changing the stylus.

Your nearest dealer is not in fact on Mars, but just down the road at Audio T (173-175 London Road, Camberley; tel: 01276 685597, email: camberley@audio-t.co.uk). Drop in and I'm sure they'll sort you out, but best leave the Cheap Trick album at home where it belongs. DP

ENOUGH SMACK FOR AN ELAC?

I've been a regular reader of your mag, and have thoroughly enjoyed your reviews (which I take seriously). Recently, with spouse approval and some savings, I've decide on setting up a system centred around the the Unico integrated amp which you gave a cracking review. My speaker of choice is the Totem Staff; a very good pair of speakers.

However, after reading your review of the ELAC 510 I've been swayed to consider getting them and the Unico DM power amp (with Unico pre) combination. I have some questions and hope you can help me.

1) Will the combination of "old world" tube charm of the Unico DM, and new world high-tech sound of the ELAC 510 yield good results? I would hope the Unico DM will import some warmth, tune, spaciousness and soundstage to the speakers and not ended up sounding bright.

2) Given the ELAC 510 low sensitivity with its 3 ohm dip, can the Unico DM drive them well? I read that it will give higher distortion rate when driving 4 ohm speakers?

3) According to an audiophile friend, the Unico DMs' damping factor of 50 (compared to >100 of full SS design), it may not drive and control 4 ohm woofers like the ELAC 510. Is this true?

I hope you can advise me on my choice, and recommend me some alternatives if the above combo isn't optimum.

Thank you and have a happy new year ahead!

Andrew Rikker
Singapore

This is an interesting combination. The ELAC 510 is a deeply impressive loudspeaker, thanks in no small part to its JET tweeter which is beautifully fast and open and pure. A relatively small standmounting design with a volume of just 24 litres and a small 180mm driver, its relatively tricky load.

However, domestic considerations - plus the fact that the larger the bass unit is, the further away it is from the tweeter and hence the poorer the imaging will be - don't always mean we can get what we want. The 510 is unable to achieve high sensitivity figures, and neither is it an easy load with a nominal impedance of 4ohms and the chance of it dropping to 3.3ohms.

However, the Unico DM is - to use an old, unreconstructed phrase - man enough to take it. "Solid state gaunch" is how Alan Sircom described it in his review back in November 2002. It's certainly not short of puff, and should be able to aspirate the ELACs to high volumes without undue strain. A beefy device, it uses an ECC82 double triode valve in the input stage and two pairs of complementary MOSFET solid state devices in the output stage to deliver a claimed 150W per channel into an eight ohm load - something we had no reason to doubt! Tonaly they should be a good match, as you point out.

The ELACs are just a tad on the dry and analytical side and the Unico veers subtly towards the warm and sweet. All that you need now is a decent source - which you do not specify. I'd hope it would be at least the calibre of, say Arcam's FMJ CD23T CD player or Michell's GyroDec (depending on what your poison is). If not, get this sorted before upgrading the speakers. DP

The Elac 510 is a superb, open sounding bookshelf speaker.
The Avatar OBX-R is the pinnacle of Living Voice's Auditorium range of high sensitivity loudspeakers. Simon Pope finds out if it reaches the peaks of sonic perfection.

Living Voice used to be famous for producing incredibly good, incredibly large and incredibly expensive horn loudspeakers. Actually, they still do but recently the public and press - including us - have been made aware of the more affordable 'entry level' Auditorium Series consisting of the Auditorium, the Avatar and the top range Avatar OBX-R.

The differences between these three exist 'on the inside' except in the case of the OBX-R, where a weighty and spiked external box contains some electronic goodies - more of which later.

In pure cosmetic terms the Avatar OBX-R doesn't look like a £4,000 loudspeaker. Whilst it's by no means ugly or flimsy you have to remember that a third of this price will get you a pair of solid hardwood floorstanders from Italy, or a beautifully finished Castle loudspeaker from Yorkshire.

Style and style alone is not what these speakers are about. However, this said, they do use quality hardwood veneers that don't come cheap and look the part. What matters most to Living Voice is what is used to create their sound and you can't get much more upmarket or specialist than what's found in the OBX-R package. Apart from the cost of the veneers, this is where your money goes.

I'll have to admit here to being a committed fan of the 'ordinary' Avatar, and indeed the company in general. It's headed by Kevin Scott, a one time worker in mental health (he's quoted as saying this held him in good stead for a career in hi-fi!) turned committed music loving manufacturer and retailer. And it's this love of music over hi-fi and electronics that makes these products work on a musical basis. A love of music is very, very important and the best hi-fi (in my view) is often made by those that love what goes in at one end and comes out the other. (You can tell the stuff that isn't immediately, as your fillings fall out and your hair stands on end.)

The standard Avatar is a great example of this. High quality components and drive units are used in a simple and effective way to deliver a well balanced, high sensitivity sound that's coupled with warmth and detail to provide excellent long term enjoyment. However, if you want all this and more, an extra fifteen hundred will get you the super-charged, tweaked and modded OBX-R version that we have here.

BOX OF TRICKS
And what a lot that extra money gets you. The main difference is that aforementioned external black box that contains the crossover for ultimate isolation. Many audiophiles, including us at HFW, are fully aware of the merits of putting all the electronic components in an outside environment but when the box is stuffed full of goodies such as that found in the OBX-R then you're in for a very special treat indeed. This is a no-compromise mother of all crossovers. The box has the size and build of a midpriced amplifier - spikes and all. The OBX-R components are actually suspended inside the casing and are star earthed throughout. The components are tolerated to two decimal places and top of the parts
list is the highly expensive and revered Hovland film and foil Musicap capacitors hailing from the USA. There are hand wound air core inductors, and Clarostat non-inductive wire wound resistors - more examples of high end componentry.

The drivers are set in the classic D’Appolito arrangement, like the rest of the Series, but in this case the tweeter used is a very fine one indeed, the expensive Scanspeak Revelator D990000. This unit is famed for its incredibly smooth yet highly detailed performance and is used some of the best ‘speakers around.

The bass and midrange units are Vifa paper cone designs with a flexible foam surround and are a ‘matched four’.

The cabinet is virtually the same as the standard Avatar - a non-MDF construction using dense hardwood particle board with three unevenly spaced frame braces. Except in the OBX the bracing is positioned differently, partly due to necessity because the cut out for the revelator is a different size from the unit used in the Standard version.

Like the rest of the range this loudspeaker sits atop the supplied metal plinths.

Overall, this isn’t just a case of a few components chucked in here and there - this is almost an entirely different design from the standard Avatar.

You know they’re something different when you first try to hook them up. This isn’t as easy as your bog standard bi-wire proposition. You need to run bi-wire cable from the amplifier to each crossover box and then a (preferably) colour coded bi-wire run from the crossover to the loudspeakers. Definitive Audio can knock up some inexpensive and very good Hitachi cable with the relevant colour coding should you wish to keep confusion to a minimum!

The Avatar OBX-Rs were used for this review with an Audio Analogue Maestro CD player, Sony’s S55ES CD/SACD player (with the Maestro doubling as an upsampling DAC) and Quad’s 909 solid state and two-forty valve power amps, as well as the World Audio Design 300B 20 watt monoblocks and the WAD 2A3 delivering 8.5 Watts.

Preamps were Creek’s OBH-12 passive and our World Audio Design PS2 modular active preamp. Cabling was Chord Company Signature interconnect and the Hitachi ‘speaker cable. A Michell Gyrodec with RB300 arm and an Ortofon Kontrapunkt B was also called into use.

SPACE APLENTY

Like their less expensive brethren the OBX-Rs need space to breathe. This is the first thing to note. There’s no point in stuffing them right close to the wall and up against a sofa - they’ll sound claustrophobic and you won’t be able to appreciate the spatial quality that is their trademark. Placed about 6-8 feet apart and toed in slightly will make them sing best. These ‘speakers provide a typical high sensitivity ‘big’ sound - even from the fairly lowly 8.5 watts of the single ended 2A3 valve amp - and it’s immediately impressive.

Kicking off with Miles Davis’s beautifully ‘analogue’ sounding ‘Sketches Of Spain’ on vinyl, I found the OBX-Rs could muster up the kind of depth and breadth of soundstage that other rivals can only dream of. It’s only perhaps when you get to twice or three times this price that you'll get a similar effect. The orchestra had solidity and body and the woodwind instruments and Davis’s soulful trumpet floated gracefully amongst the lush orchestra. Percussion worked away effectively at the rear of the sound stage and the three dimensionality of it all was breathtaking.

Moving onto classical CD, in the shape of another spacious audiophile recording, Mahler’s Das Lied von der Erde conducted by Eije Oue with the Minnesota Orchestra, I found the OBX-Rs really digging in to deliver a superbly detailed yet very ‘easy going’ sound. No criticism is intended; ‘easy listening’ here merely means that the sound is never fatiguing or intrusive. This is where the Revelator tweeter comes into its own and it only works when it’s used properly - after exhaustive listening tests, no doubt.

The upper frequencies are very sweet and smooth, yet clear as a bell; there’s never any sense of an overtly rolled off or covered sound.

Midrange was also very impressive. The OBX-Rs give a highly open account of midrange information and this is married to well integrated, deep bass.

With the Queens of the Stone Age’s ‘Songs for the Deaf’ CD the music showed that the OBX-Rs certainly go deep and are grin-inducingly effective in this department.
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52 HI-FI WORLD & COMPUTER AUDIO APRIL 2003
This CD can sound rough through lesser gear and these kind of complex and heavily processed studio recordings really sort the men from the boys. Because the OBX-Rs are perhaps one of the least compressed sounding speakers around they reacted well with this music, giving a full and well detailed performance that also made every layer of the mix lucid and evenly balanced. Drums were solid and powerful, driving the music along well and vocals, both lead and backing, were beautifully clear.

Although smooth and warm the Avatars are by no means lazy or slow. They can rock and roll with the best. Stuff like the sparse drum ‘n’ bass of Photek also fared brilliantly showing a deep and powerful bass and a tight hold of beats and rhythm.

**FINAL STATEMENT**

What the extra money for the OBX-R version buys is plentiful. Firstly the detail is much better, with better separation of instruments and more space around them. This makes them an ideal match for low powered single-ended valve amps. Then there’s the improved bass extension, which some may say is also slightly coloured - which I suppose it is, but I don’t see anything wrong with this at all. It’s not extreme bloom and it’s not sterile sounding - it merely makes the music sound enjoyable!

The standard Avatar still remains a firm favourite of mine - it’s a superb sounding and somewhat pleasingly simple design. But the OBX-R possesses every trait of the standard version and takes it one big step further. Unfortunately, owners of the standard Avatar can only upgrade by trading in and buying a new pair of OBX-Rs, as the cabinet will not accept the better quality Revelator unit.

These are simply some of the finest ‘speakers on the market regardless of price and along with the entirely different Quad ESL-988 electrostatic are unbeatable for sheer musical enjoyment. Indeed, in my dream world a pair of each would do me for the rest of my audiophile days. The OBX-Rs suit all types of music and most recordings, which is a blessing, and a rarity in the high end.

As another bonus, they work well with any type of amplifier (provided it’s of high quality) ranging from a 4 watt single-ended, through to Sugden’s class A sound, right up to solid-state power houses. The Avatars won’t immediately astound, grab you by the throat or even make the tea for that matter, but they’ll gradually fit into your musical world like slipping between cool Irish linen sheets into a king size bed. You won’t want to get out, believe me. Whilst perhaps not the perfect ‘total’ loudspeaker - and it’s not cheap - it’s all you’d want from a long term music maker - and more.

Living Voice Avatar OBX-R £4,000
(standard finish)

Definitive Audio
Tel: +44 (0)115 973 3222
www.livingvoice.co.uk

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**MEASURED PERFORMANCE**

Living Voice pursue specific design aims, something that’s obvious from measurement. The Avatar OBX-R is very sensitive, producing a massive 92dB from one nominal watt of input. In truth, since the speaker is a 4ohm design it is actually drawing 2 watts from a 28V input, but all the same, for this paltry amount of power the OBX-R goes very, very loud – much louder than most loudspeakers.

Being a well defined load, as our impedance analysis shows, with little variation in impedance across the audio band - bass resonance excepted - this loudspeaker is easy enough to drive, although it will draw current. It’s a great choice for valve amplifiers with a 4ohm tap and it isn’t so bad for solid-state, except heavy current draw increases distortion a little from most, if not all, transistor amps.

Another feature of this ’speaker is its tilted frequency response and predictably soft sound. Although treble extends smoothly up to 16kHz, peaks in midrange output at 250Hz and 800Hz lift the midband and, relatively speaking, depress treble, so the Living Voice is not especially flat, nor accurate. It may also display some colouration from these effects.

Bass extends down to 40Hz from forward cone output, whilst the large port reaches down to 25Hz and lower with ease. There will be no shortage of bass and the impedance plot show it is well damped and controlled.

The Avatar OBX-R should give a fulsome but lucid sound - and a lively one too. This speaker will offer very easy long term listening, with excellent dynamics, good bass quality and unforced detailing. NK
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Record players: SME models 10, 20 and 30; Kuzma Stabi, Stabi Reference; Nottingham Analogue Interspace, Space Deck, Hyperspace and Dais; Mitchell Orbe; VPI AriesScout; Avid VolVo, Sequel and Acutus.

Amplifiers: Reaga 300H/000/00; SME Series IV and VI; Kuzma Stabi; Triplanar; Cartridges: VanDenHul Grossshopper and Colibri; Kuzma KC Ref; EM; Reson Reca and Elite; Cartridge Man Musicmaker; Benz-Micro including Ruby Open Air, Krono lo J.

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Cables and tables by Living Voice.
Want to play vinyl but can't afford a top turntable? Michell's affordable new TecnoDec could just be the answer. David Price reviews a budget eye-catcher.

Back in the mid nineties, Linn Products discontinued its Axis and Basik turntables, citing the reason as lack of demand. Then Michell's Mycro and Synchro also went the way of the Dodo, with a similar explanation. Analogue, it seemed, had become the province of the high-end, with the likes of the evergreen LP12 and GyroDec being the minimum that vinyl junkies would possibly contemplate spinning their black plastic with.

How times change. Nearly a decade later, there's a perceived need for something affordable but decent for people to play records on. Rather than going back to LP for nostalgic reasons, like the oldsters, lots of younger buyers raised on CDs seem desperate for a 'bit on the side'.

For me, an Audiophile Furniture Base SP01 gave great results, but ideally the likes of Townshend's Seismic Sink should be used. However, spend this much on a support and you might as well pay the extra £250 and buy a GyroDec SE, anyway. The cheap way, readers, is to put a partially inflated bicycle inner tube between two slices of MDF - I kid you not.

So, suitably assembled (like all Michells, the TecnoDec is sold as a kit of parts - Ikea style - which you bolt together with the supplied Allen key) and placed on a level, well isolated surface as far away from the speakers as possible, I set about auditioning this deck.

For me, an Audiophile Furniture Base SP01 gave great results, but ideally the likes of Townshend's Seismic Sink should be used. However, spend this much on a support and you might as well pay the extra £250 and buy a GyroDec SE, anyway. The cheap way, readers, is to put a partially inflated bicycle inner tube between two slices of MDF - I kid you not.
The first time you hear your sound system with Chord interconnecting cables will be the first time you've really heard it. Be warned - the effect can be shattering. Your eyes and ears will be opened. Your music will never sound the same again. Specify Chord cables - Hear the light!

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COMAG MAGAZINE MARKETING
own little oil pump), platter (minus gold weights), belt, legs and motor come direct from the Gyro. The only bespoke bits are the Acrylic subchassis, feet and arm mounting plate. While it doesn't look a million dollars like its bigger brothers, the quality of the build and finish is superb. Not even on Rega's Planar 25 will you find such beautifully machined and/or polished bits. For £600 it puts its rivals from Project and AudioNote to shame in this respect.

The TecnoDec also comes with the interesting option of a Michell-modded Rega RB300. It boasts a redesigned counterweight, albeit with no changes to the rear end stub (a la Origin Live) and wiring (reputed to be with Cardas cable). The result is a subtly upgraded tonearm which can be sold as a 'package' for those unwilling or unable to get the spanner out and do it themselves. To put the cart before the horses, so to speak, this is a nice option but not - in my opinion - a serious rival to Origin Live's RB250 with 'structural modification'. It sounds appreciably better than the standard Rega arm, but still nowhere near the OL. It's a nice option to have though, so why ever not? Additional goodies available at extra cost include Michell's record clamp (which is superb and well worth having) and the recently launched £44 Unicover.

LISTENING

Hooked up to a Linn Adikt MM cartridge and Origin Live modded Rega RB250, driving a World Audio valve pre-power and my Yamaha NS1000M loudspeakers, the TecnoDec proved an extremely impressive vinyl spinner. Considering that the deck I had on hand to compare it with was my own reference Michell Orbe/OL Illustrious/ Ortofon Kontrapunkt B, it worked wonders. Of course, it's a league or three below the Orbe set-up, but the fact that it still proved an extremely fulfilling listen, immediately after laying ears on its big brother, was a fine sign.

Essentially, the TecnoDec has a very open and neutral sound. So clean and clear is it that it doesn't suffer from any discernible budget turntable nasties at all. To wit, it is speed-stable, rhythmically coherent and secure, dynamically uncompressed and tonally neutral. As soon as you cue up a track, you find yourself getting into the groove of the music, rather than worrying about curtailed frequency extremes, spongy bass or rocky imaging that plagues turntables at this price.

In the same way that the Rega P3 succeeds by not doing anything obviously wrong, so the TecnoDec offers a clean and unassuming insight into the proceedings without distraction. But it's a whole step up from the Rega, of course.

I kicked off the listening with The Crusaders' 'Street Life'. Hearing Randy Crawford's to-die-for vocals running up and down the scale with unfettered power and poise was a surprise at this price. Rather like the GyroDec, it sets up a wide and tightly defined acoustic, into which every strand of the mix is placed accurately and with conviction. The result is that whatever happened with lead vocals, the backing musicians stayed solidly in place and always clearly distinguishable, even on dynamic peaks.

It is this broad, open, deep, transparent and even midband that defines the TecnoDec's essential character. Of course, switching to a Gyro or Orbe will bring substantial gains in depth perspective and an even more solid, unflappable sound. But that the TecnoDec can get close is a brilliant achievement at the price - by comparison, its price rivals sound wobbly and vague. In a sense, this predisposes the new Michell to the aforementioned 'CD generation', who'll find the looseness of some of its rivals a big turn off.

Moving to The Human League’s ‘Love Action’, and the deck proved tonally faultless too. Its bass is obviously lighter and less extended than the Orbe, but is no less fast - making for a very tight and bouncy sound. It’s impressively even and not lumpy in the least, unlike some far more expensive designs such as the Linn Sondek.

Moving up to the midband showcases its brilliant textural resolution. You can really get a feel for the 'grain' and 'patina' of an instrument, be it electronic or acoustic. This is where good vinyl blows similarly priced CD players into the weeds - the digital brigade would be amazed to hear the late 1970s synthisers on this track sound so rich, vibrant and full of harmonics (well, they were analogue, I guess!). Phil Oakey's vocals sounded similarly lifelike, whereas CD generally renders them as cold and grey as a wet winter Wednesday afternoon.

The TecnoDec's treble is no less enthralling. Whereas its rivals smear and soften, this player worked wonders on the prog rock histrionics of Rush's 'Subdivisions'. Drummer Neil Peart's propensity for squeezing in twice as many hi-hat cymbal licks as is healthy were no worry for this disc spinner. Brilliantly secure and impressively good at rhythmic nuances, phrasing and accents, it allowed vinyl's superb bandwidth to be heard in its full glory. All the Orbe could offer up was a fraction more definition and upper treble extension; considering the all-too-variable quality of many LPs, this wasn't always a good thing though.

The great thing about the TecnoDec is its open, neutral and forgiving nature. Unlike top dollar decks, it doesn't get too forensic, too analytical, too tongue tied. It doesn't attempt what it can't pull off, preferring rather to give everything it plays a lively, musical and engaging sound. Go up to a super-deck and as often as not the results will be no more enjoyable, as it starts to tell you how bad the disc pressing, studio recording or mastering, or partnering ancillaries are. Properly sited and set up, this product draws a brilliantly judged line in the sand about what and what not to do.

The result is a brilliant argument for analogue - open, warm and musical but with all the grip and analysis the digital generation demands, it delivers a resounding kick in the teeth to similarly priced Compact Disc. Kitted out with an OL RB250 (or Michell’s own modded Rega) and Dynavector DV10X4 and you've got a £950 product that will paste all its rivals, digital or analogue - DVD-Audio or not. Can’t say fairer than that! Hate to say it (as I'm going to have to repeat myself), but this is another cracker from John Michell.

Michell TecnoDec £599

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World Verdict £599

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Tannoy's highly regarded external high frequency unit has had a re-launch and a re-fit to bring its price down to more reasonable levels. Simon Pope encounters the ST50 SuperTweeter.

Tannoy's WideBand technology now features right across the the company's loudspeaker range. This includes a new budget range, due soon, and two midpriced ranges, as well as the high-end Dimension Series. All possess the SuperTweeter or a derivative of it.

KEF have also developed a super high frequency unit (not available separately as yet) and even audio maverick Max Townshend has a new super-tweeter design on the market. This is due to the emergence of SACD and DVD-A as viable mediums of course, something Tannoy were quick to predict.

It must have been well over two years ago that I first encountered this interesting new toy developed by the boffins at Tannoy. At a press launch the company demonstrated to the assembled press a pair of ST100 SuperTweeters perched atop a pair of fine old dual concentric Turnberrys. At first, without hearing them, I admit to some scepticism but the more I listened, the more they revealed themselves as a more-than-viable high-end audiophile accessory, if not a necessity. When they were taken away and the Turnberrys run au naturel something was most definitely missing. Although superbly crafted and well put together this extra curricular audiophile treat was priced at £1,100. Not quite exorbitant, but neither Christmas stocking material.

Now the SuperTweeter is available in a slightly different guise - and at half the price of the ST100. Gone is the luxurious solid walnut housing pod, which gave it a flying saucer like shape. In the ST50 this pod is now a black coated aluminium casting.

Other changes are in the user adjustable settings. The ST50 has the same range of sensitivity and frequency settings (85-93dB and 14-18kHz respectively) except that there are three settings of each with the ST50 whereas the ST100 offers five for more exact customisation.

Other than this the 25mm diameter, 25-micron thick titanium dome tweeter is the same (actually, it's the same as that used in all current Wideband 'speakers!) with a 24 karat, vapour deposited gold finish. The diaphragm is stiff, to minimise the effects of dome break-up and extend the frequency range. High quality polypropylene capacitors are used throughout and are chosen for their high frequency capability.
Illustrious - the new "world beater"

**Origin Live Tonearms**

<table>
<thead>
<tr>
<th>Tonearm</th>
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</tr>
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<tr>
<td>Silver</td>
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<tr>
<td>Illustrious</td>
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"The Silver is the very best tonearm I've ever heard....the £599 price tag is laughably low....could probably charge five times this amount....words can't express how good this is - one of the designs of the decade"  
Hi-Fi World 2002

"There may be better value propositions around to upgrade your system but if there is I haven't heard them....A fantastic product then from Origin Live and this particular audiophiles dream review tool."  
TNT Audio 2002

Very occasionally new products appear that are so advanced as to render all previous benchmarks obsolete. People believe our new range of tonearms are just such products and we invite you to experience an unprecedented leap in your system performance - regardless of your current tonearm. Arrange for an audition now.

All products carry a full no risk money back guarantee and are available via your nearest Origin Live dealer or by direct mail order.

For more information visit our website or contact:

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www.originlive.com

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email: mail@walrus.co.uk
web: www.walrus.co.uk
Setting up the ST50s is a doddle. Simply connect either the matching Tannoy cable or another short speaker cable run from the terminals of the loudspeaker to the heavy binding posts at the rear of the pod. Then place the pod into the sturdy stand (or “Tannoy Performance Platform” as it is so called!) which then goes atop the speaker. Move the concentric dials to match the approximate sensitivity of your main speakers and choose the roll-off frequency, from which the ST50s will zing up to around 54kHz!

I used the Tannoy with a pair of fine, full frequency Mirage OM-7s and a pair of Quad ESL-988s - even though a delicate balancing act and some Blu-tac was necessary to get the bloomin’ things on top of the electrostatics! Sonic results were superb - not only with SACD and DVD-A but with CD and even vinyl as well. The reason for this is that it’s not just about high frequency extension alone. In the same way a good sub deepens the soundstage and adds a particular tightness and clarity to the overall sound, so the ST50s add space and transparency, as well as depth of soundstage. There’s even - believe it or not - a tightening of the bass!

Dvorak’s 9th symphony conducted by Nikolaus Harnoncourt on a Telarc DVD-A disc had amazing lucidity and a great spatial quality. The orchestra spread fully throughout the room and it appeared that the imaging was also improved. Upper frequency violin notes and percussion veritably sparkled and the midrange woodwind was superbly clean and coherent. All of the orchestral instruments had oodles of space around them.

This coherence and space was also present in Miles Davis’s ‘Kind Of Blue’ on CD, which had superb realism and detail, with each instrument clean as a whistle yet warm and sweet sounding. Studio based rock music is less revealing with the ST50s but layers of the mix are well separated; these supertweeters have a ‘cleaning up’ effect on the sound.

One warning though: rough recordings with tinny treble will sound a bit edgy and hard. Despite this you’ll still retain the ‘opening door’ effect when you alternatively enable and disable them.

Tannoy’s SuperTweeters are a great upgrade for a top spec system, where they will really shine. They need top quality components to emphasise what they are capable of and won’t necessarily match well with super-bright sounding amplifiers or sources. In these circumstances they sound a tad crispy - but still impressive nevertheless.

One certainty about the ST50s is that they are addictive; your music will sparkle and open up before your very ears and if you disconnect them it won’t be for long - it simply won’t sound the same. If you have a high quality system that you feel needs a little lift and tweak, look no further.

**World Verdict**

A bit of a luxury but superbly effective in a high end system. The ST50s will open up your hi-fi to great effect.

**Tannoy ST50 SuperTweeter £600**

Tannoy
Tel: 01236 420199
www.tannoy.co.uk

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The ST50 has settings for main speaker sensitivity and treble roll off.
A full spec, universal DVD-Audio/ SACD spinner from Max Townshend? David Price is impressed by his 'Reference Rebuild' of a popular Pioneer player.

Pioneer's DV-757i, complete with i-Link for use in conjunction with its VSA-AX10 AV amplifier proved just how much better the basic player could be when parted from its internal DACs and analogue output stages.

Enter Max Townshend. He duly started working on a stock Pioneer player, and the result is what you see before you. For the not inconsiderable sum of £2000, Townshend Audio's Reference Rebuild programme will take a cooking DV-747A (predecessor to the new 757i) and mod it. Alternatively you can buy a new one for the princely sum of £3,000, complete with a two year guarantee.

The entire player gets a serious internal makeover, incorporating Townshend's proven 'Seismic Sink' air isolation technology, providing mechanical isolation for both lateral and vertical vibration from 3Hz upward. Then, constrained layer damping is applied to deaden all panel vibration, and adjustable feet incorporated to level the unit if cable weight unbalances the compliant suspension. Then there's the myriad electronic mods squeezed into its compact 420x270x160mm case.

Discrete amplification and filters are used, utilising audiophile components. Clock circuitry is modified for low jitter, and the power supply has an audiophile-grade transformer.

**SOUND QUALITY**

As I've said, the boggo DV-747A is not a bad player. Its CD playing ability isn't far off a £250 Marantz CD6000, its DVD video spinning talents par for the £500 course. The Townshend Audio Reference player punches the machine's audio performance way out of this league, into the world of high-end Marantzes and mid-range Meridians.

Suddenly, you stop having to add those 'great - for a budget player' type caveats. Spin up a CD of Nirvana's 'Come As You Are' and you're greeted with a serious bassline underpinning a vastly enlarged soundstage. Rather than skimming the surface of the sound as cheap CD does, this player penetrates into the cracks, digs into the recesses of the mix, allowing you to listen right in. The result is radically improved focus and detailing, a far more rhythmically beguiling and dynamically accurate sound plus - and this is my favourite bit - real tonal colour. Suddenly the wall of greyness is banished and you can get a sense of the tonal quality of the instruments, the grain of the voice, the sound of the recording.

This holds true with DVD-Audio discs, too. REM's 'Reveal' brings a subtly smoother, calmer tonality (more like SACD in fact) with less brightness to the picture. However, the contrast is enhanced noticeably, meaning you can hear into the studio, get the feel of those Rickenbacker guitars and hear the plaintive stylings of Mike Stipe's voice - whereas the cooking DV-747A would merely sound 'hi-fi'. Dynamics are vastly improved, but it's those tiny inflections and subtle nuances that see the benefit rather than any vast increase in punch. Simply put, you feel closer to the musicians, like they're in the room there with you.

To my ears, SACD is
transformed. Where the original Pioneer sounded a little vague and fluffy with questionable soundstaging and image location, Max's model has an almost architectural precision. Framing instruments and vocals far more positively in the mix, now that sacred out-of-the-box sound is routinely possible. The player can really drive the room with tremendous confidence and grip - the standard Pioneer's soft, sweet SACD bass becomes altogether crisper, more tuneful and rhythmically coherent. Along with a clearer, more incisive treble and midband, it makes the Rolling Stones' recently remastered 'Brown Sugar' sound more like music and less like hi-fi.

You're still aware of the imperfections of the original studio recording, whereas before you obsessed on them.

This player is serious - although I've heard the original Marantz SA-I and MF Tri-Vista do better with SACD, it's probably the only other machine that really makes this format's capabilities obvious right now. Such is its confidence, poise and even-handedness that you're able to lose yourself in the music just like you can with analogue. It's also able to squeeze so much more from DVD-Audio than I'd thought possible.

Downsides? Well, the Reference Rebuild hardly exudes a feeling of 'hewn from solid'. Essentially you're buying a tweaked, aftermarket mod and not a factory original, so you'll not get Japanese standards of build quality. The base unit that houses the power supply and bicycle inner tube (sorry, 'seismic sink') is a long, long way from the standards of build and finish set by the Pioneer player itself. If you can live with this, then your two gees will buy you a seriously good sound on both new 'high resolution' digital formats.

Townshend Audio Reference Rebuild
£2,000 plus player

Townshend Audio Reference DV-747A £,300

www.townshendaudio.com

MEASURED PERFORMANCE

Reduced ripple, better regulation and isolation benefit the DV-747A in terms of analogue noise on the right hand channel of our demonstration sample which enjoys a wide 112dB S/N ratio, up some 2-3dB on Pioneer's standard DV-747A. Sadly, the left hand channel has dropped to just 102.5dB, suggesting Townshend's QC is not up to Pioneer's own standards....

There is no significant alteration to either the player's distortion or frequency response with CD, SACD or DVD-A software. Midrange distortion remains impressively low at just 0.0005% regardless of format, while THD at lower levels does improve with higher resolution software. For example, CD yields 0.053%, SACD gives 0.02% and DVD-A an impressive 0.009%, all at ~ 60dBFS. Similarity, while CD's low-level resolution peters out below ~100dBFS, both DVD-A and SACD succeed in coding extremely low-level information to about ~120dBFS.

The benefit derived from lower noise (including noise-like jitter) is revealed by the three graphs. Jitter is clearly reduced from ~640psec (green trace) to just ~270psec (dark blue trace) on the preferred right hand channel of our sample. At very high frequencies there's an 'increase' in distortion with the Townshend player, although from 0.018% to 0.08% at 40kHz is hardly of great subjective significance (see Graph 2). Graph (3) shows the additional ultrasonic output produced by SACD, which submerges any high frequency harmonics, but it also reveals the improved S/N ratio available across the audio range (dark blue trace).

Whether the benefit of lower noise and jitter is enough to match the superior performance of Pioneer's cheaper, second generation players like the DV-656 and DV-757 is another matter altogether. PM

Frequency Response

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Distortion

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Noise (IEC A)

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Output

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<tr>
<td>SACD</td>
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Transforms an already fine universal player into something very special - its grip, musicality and tonality are superb. Poor build quality, however.
KEC82 VALVE AMPLIFIER KIT

The KEC82 is our latest introduction for the true beginner and designed by Andy Grove. A simple and elegant design based on the classic ECL82 valve, a triode and power pentode sharing the same glass envelope. The amplifier consists of two ECL82s per channel, the triode sections work as the input/phase splitter and the pentode sections work in push-pull for the output stage. The amplifier offers 8 watts into an 8 ohm load, the hum level is extremely low, comparison to solid state standards. The chassis is constructed of 1.6mm mild steal with a black powder coat finish, there is only one signal input pair controlled at the front by a volume control for that simple touch. The speaker connects are the standard 4mm banana type, positioned at the rear, as are the mains input which is received through an IEC lead, mains switch and earth post. We have made the construction as simple as is humanly possible with comprehensive instructions. The circuitry is based on a single printed circuit board. Ultimately this kit is for the guy who has always fancied a go at building a kit, but never dared. Simon Pope says, "It's a great introduction to the valve sound. For its humble price it delivers a full and rich sound with great detail and good depth."

KECL82 weighs 9kg. External dimensions are 30cm(w)x23.5cm(d)x1cm(h).

KECL8550 VALVE INTEGRATED AMPLIFIER KIT & KAT6550 VALVE POWER AMPLIFIER KIT

These are our new 6550 series amplifiers. A pure class A design providing 40 watts into an 8 ohm load. (available in a 4 ohm version if required) A truly high end design by Andy Grove, using Svetlana 6550Cs in push-pull (any 6550 or KT88 tube can be used with this amp). It features valve rectification (5U4) a choke pi filter power supply and is hard wired. Weighs 19kg with dimensions 390mm(w)x330mm(d)x190mm(h) with valves or 220mm(h) with cage. Simon Pope says - "If you favour attack and rhythmic grip, together with a smoothness of sound that's incredibly easy to live with, the KIT6550 could well be the kit amp for you. The 6550 is one for those who like a valve sound married to the attack and clout of a good quality solid state design."

KECL84 VALVE INTEGRATED AMPLIFIER KIT

The KECL84 features a pair of EL84 valves per channel in push-pull configuration. They give 15 watts into an 8 ohm load. The output transformers are Ultra Linear. Up front the ECF80 input/phase splitter valve has an extremely smooth sound. The KECL84 has very low hum, for simplicity the kit is built on a printed circuit board. A strong steel chassis is fronted by a 3mm anodised front panel and attractive chromed custom made knobs. There are five line level inputs, plus one monitor input, with a tape output included, all controlled from the front panel. At the rear is a mains switch/IEC power input, earth post, phonos, and 4mm banana sockets. Simon Pope says, "The quality that can be gleaned from this amp is a fine introduction to the joys of the valve sound. The KECL84 will highlight all the intricacies and depth of detail in your favourite recordings whilst retaining a warmth and fullness that is almost exclusive to pure valve amps and is rare at this price point."

KECL84 weighs 10kg. External dimensions with valves are 300mm(w)x270mm(d)x150mm(h).

2A3 PSE INTEGRATED AMPLIFIER KIT

The 2A3 PSE integrated amplifier offers a seriously hi-end sound, but without the cost usually associated with single-ended amplifiers. The stereo chassis houses, on the output, 2 x 2A3 in parallel single ended configuration and a single 6SN7 as the driver tube per channel. The valve rectified power supply consists of a 5U4 and a 10h choke. This feedbackless design provides 8.5 watts into an 8 ohm load, so a good sensitivity speaker is required above 90dB. It can accept 6 line-level inputs fully controllable from the front panel. We provide the excellent Alps Blue potentiometer as standard. The amplifier is hard wired so plenty of scope for tweaking in the future. Simon Pope says, "The 2A3 PSE makes an impressive piece of kit, good imaging, wide sound stage, nicely extended on the high frequency and tremendous bass thump. Weight - 20kg, external dimensions with valves fitted - 390mm(w)x360mm(d)x220mm(h)."
DIY KITS IN THE WORLD

ALL NEW SERIES II MODULAR PRE-AMP KIT

The PRE-II is a valve pre-amplifier with six inputs, tape monitor and two sets of output sockets. It utilises a high quality line driver transformer and x5 gain. The PHONO-II is a dedicated valve phono stage that incorporates a step-up transformer for MC users. Finally, PSU-II is a power supply unit that feeds both the PRE-II and PHONO-II.

- Power Supply Unit (PSU-II): £195.00
- Pre-amplifier (PRE-II): £115.00
- Phono Stage (PHONO-II): £10.00
- Moving coil step-up transformer: £77.00
- Passive pre-amplifier (PAS-II): £215.00
- Moving magnet step-up transformer: £95.00
- Moving coil transformer: £15.00

The PHONO-11 is a dedicated valve phono stage that incorporates a step-up transformer for MC users. Finally, PSU-11 is a power supply unit that feeds both the PRE-11 and PHONO-11.

KAT34 VALVE POWER AMPLIFIER KIT & KIT34 VALVE INTEGRATED AMPLIFIER KIT

KAT34 is a 32 watt stereo valve integrated amplifier, featuring a pair of EL34s, in push-pull mode, per channel, plus an ECF80 pentode/triode as input/phase splitter. The power supply is valve rectified (2 x 5U4), using a heavy duty choke to achieve exceptional smoothing. The output transformers are 4% Ultra Linear tapped to keep distortion down to its lowest level and the kit is totally hard wired utilising three tag boards. It has five line level inputs, plus a tape-in and tape out, all controllable from the front. Simon Pope says, "This integrated bring together the best sonic virtues of our KIT88, kit34 and top of the range 300B PSE in an affordable package. The highlights of the sound are a deep and taut bass response, together with an open and highly detailed mid and high frequency response that only the best valve designs can achieve... a true valve classic." Weight 22kg. External dimensions with valves fitted - 390mm(w) x 360mm(d) x 210mm(h)

£480

£495

£875 A pair

300B PSU MONOBLOC KIT

Our Parallel Single Ended amplifiers offer ultimate sound quality. Each monobloc has two of the beautifully linear 300B directly heated triode in its output stage, producing 20 watts into an 8 ohm load. At the front we have a 6AU6 pentode and an ECC82 as the driver valve. This design utilises a 5U4 rectifier valve in the power supply, in combination with a 10H choke, giving an extremely quiet supply. Both mains and output transformers we E1 pattern.

For purists, feedback is switchable and the kit is totally hard-wired. For those that require valves we provide the superb Tesla 300Bs, Russian SU4s and European 6AU6s & ECC82. Simon Pope says, "Not to put too fine a point on it, the sound these monoblocs create is among the finest that can be encountered in hi-fi." Weight 22kg, External dimensions with valves fitted - 390mm(w) x 360mm(d) x 210mm(h)

£195

HD83 VALVE HEADPHONE AMPLIFIER KIT

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lichés such as 'mind-numbingly beautiful' and 'raises goose pimples' are all so often liberally distributed when one is referring respectively to the opening bars of the Sibelius Violin Concerto in D minor and final pages of his Symphony No.5 in E flat. The two works, each lasting around 30 minutes apiece, are amongst the finest of their genre and of the composer's entire canon. Both these gems came together in an early digital (although, surprisingly, none the worse for that) 1987 EMI recording with the City of Birmingham Symphony Orchestra, under conductor Simon Rattle, with Nigel Kennedy as solo violin. It's a classic cut and the fact that it was undertaken by two relatively young and - in Rattle's case - then non-ennobled, British performers.

The Violin Concerto, originally composed in 1903 and revised, shortened and finalised in 1905 is one of the most frequently performed works of its type and apparently boasts over 60 recordings. Few pundits amongst the toffee-nosed classical music cognoscenti willingly praise Kennedy for almost anything - and make no exception with his creditable, enthusiastic and passionate playing on the concerto. I've met Kennedy, interviewed him and spent enough time with him to know that despite perceived idiosyncrasies his fervour for both his instrument and music is utterly honest and commendable. He was the first English soloist to have tackled this work for many years and did so with accomplishments.

There is much to respect here, with Kennedy achieving a wonderfully ethereal sound at the very opening, which as has been said, is achingly gorgeous. Throughout, Kennedy's intonation is spot on, and he takes the considerable technical hurdles of this concerto easily in his stride. It makes for an exhilarating and lovely work, three movements of lush music, which will involve you totally. Try it when driving. Seriously.

Not the Fifth Symphony, though. That's for home alone situations, relaxed and ready to listen. It's a stunning work, grandiose, majestic and hauntingly attractive. The first two movements are building to the final third - one of the most truly magnificent dénouements in any music, complete with a literally striking 'false' final bar structure (you'll have to listen to it to fathom all that out).

With Simon Rattle, we have a conductor with a real understanding of this symphony. His account is very refined indeed, taut and intense with a powerful atmosphere and serene sense of space. It is said that Sibelius referred to themes in the Fifth as being identified with migrating swans around his country home. Certainly, all Sibelius's symphonies, none are more 'Finnish' - in the sense that they evoke the stark beauty of its landscapes. But it's no simple picture-postcard. Composed in 1915, it also suggests the troubles of World War I, and of Sibelius's inner struggles: he began writing it while caught up in depression. His diaries contain references to 'wrestling with God' and in the manner of insecure people everywhere he vacillated wildly between scathing self-criticism and ecstatic moments of confidence in his own ability. By comparison with the expressionism and dark, harsh orchestral colours of Symphony No. 4, Symphony No. 5 is sunny, imbued with the spirit of nature, and turned outward. Despite some chromaticism, the composer returned to tonality. Behind the Fifth Symphony's classic façade, however, hides some of the progressive elements of the Fourth Symphony. At the same time as he was working on the Fifth Symphony, Sibelius was also working on Symphonies No. 6 and 7. In a letter from the year 1918, he wrote: "It seems as though I am presenting myself with all three symphonies at once. As always, the sculptural element is ever more conspicuous in my music." Sibelius revised the Fifth extensively, telescoping the first two movements into one in the final version. That is one among several unusual characteristics of this subtle symphony, whose aforementioned dramatic ending - prodding chords separated by long silences - is unique in orchestral literature. Ultimately the message of the Fifth proved triumphant, with majestic pedal points in the noble home tonality of E-flat asserting a positive psychological destination. The final brooding gathering of themes is beyond criticism and brilliantly read by Rattle. Sibelius offers plenty of strife and conflict during the journey, but there does seem hope - for us all.

This is a quite superb coupling and tremendously invigorating listening. As I say, both pieces need separate digestion, the Violin Concerto being the easier meal - although hardly a snack. The Symphony is a monumental banquet and deserves fine wine of the highest calibre. Both Kennedy and Rattle excel at their crafts and the playing of the Birmingham Symphony Orchestra is excellent throughout as, for that matter, is the EMI recording. An early digital masterpiece amongst a weiter of dross! I cannot adequately stress the impact the final ten minutes or so of the symphony will have on you - provided you have a soul within you.
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lichés such as 'mind-numbingly beautiful' and 'raises goose pimples' are all so often liberally distributed when one is referring respectively to the opening bars of the Sibelius Violin Concerto in D minor and final pages of his Symphony No.5 in E flat. The two works, each lasting around 30 minutes apiece, are amongst the finest of their genre and of the composer's entire canon. Both these gems came together in an early digital (although, surprisingly, none the worse for that) 1987 EMI recording with the City of Birmingham Symphony Orchestra, under conductor Simon Rattle, with Nigel Kennedy as solo violin. It's a classic cut and the fact that it was undertaken by two relatively young and - in Rattle's case - then non-ennobled, British performers.

The Violin Concerto, originally composed in 1903 and revised, shortened and finalised in 1905 is one of the most frequently performed works of its type and apparently boasts over 60 recordings. Few pundits amongst the coffee-nosed classical music cognoscenti willingly praise Kennedy for almost anything - and make no exception with his creditable, enthusiastic and passionate playing on the concerto. I've met Kennedy, interviewed him and spent enough time with him to know that despite perceived idiosyncrasies his fervour for both his instrument and music is utterly honest and commendable. He was the first English soloist to have tackled this work for many years and did so with accomplishment. There is much to respect here, with Kennedy achieving a wonderfully ethereal sound at the very opening, which as has been said, is achingly gorgeous. Throughout, Kennedy's intonation is spot on, and he takes the considerable technical hurdles of this concerto easily in his stride. It makes for an exhilarating and lovely work, three movements of lush music, which will involve you totally. Try it when driving. Seriously.

Not the Fifth Symphony, though. That's for home alone situations, relaxed and ready to listen. It's a stunning work, grandiose, majestic and hauntingly attractive. The first two movements are building to the final third - one of the most truly magnificent dénouements in any music, complete with a literally striking 'false' final bar structure (you'll have to listen to it to fathom all that out).

With Simon Rattle, we have a conductor with a real understanding of this symphony. His account is very refined indeed, taut and intense with a powerful atmosphere and serene sense of space. It is said that Sibelius referred to themes in the Fifth as being identified with migrating swans around his country home. Certainly, all Sibelius's symphonies, none are more 'Finnish' - in the sense that they evoke the stark beauty of its landscapes. But it's no simple picture-postcard. Composed in 1915, it also suggests the troubles of World War I, and of Sibelius's inner struggles: he began writing it while caught up in depression. His diaries contain references to "wrestling with God" and in the manner of insecure people everywhere he vacillated wildly between scathing self-criticism and ecstatic moments of confidence in his own ability. By comparison with the expressionism and dark, harsh orchestral colours of Symphony No. 4, Symphony No. 5 is sunny, imbued with the spirit of nature, and turned outward. Despite some chromaticism, the composer returned to tonality. Behind the Fifth Symphony's classic façade, however, hides some of the progressive elements of the Fourth Symphony. At the same time as he was working on the Fifth Symphony, Sibelius was also working on Symphonies No. 6 and 7. In a letter from the year 1918, he wrote: "It seems as though I am presenting myself with all three symphonies at once. As always, the sculptural element is ever more conspicuous in my music." Sibelius revised the Fifth extensively, telescoping the first two movements into one in the final version. That is one among several unusual characteristics of this subtle symphony, whose aforementioned dramatic ending - prodding chords separated by long silences - is unique in orchestral literature. Ultimately the message of the Fifth proved triumphant, with majestic pedal points in the noble home tonality of E-flat asserting a positive psychological destination. The final brooding gathering of themes is beyond criticism and brilliantly read by Rattle. Sibelius offers plenty of strife and conflict during the journey, but there does seem hope - for us all. This is a quite superb coupling and tremendously invigorating listening. As I say, both pieces need separate digestion, the Violin Concerto being the easier meal - although hardly a snack. The Symphony is a monumental banquet and deserves fine wine of the highest calibre. Both Kennedy and Rattle excel at their crafts and the playing of the Birmingham Symphony Orchestra is excellent throughout as, for that matter, is the EMI recording. An early digital masterpiece amongst a welter of dross! I cannot adequately stress the impact the final ten minutes or so of the symphony will have on you - provided you have a soul within you.

The Sibelius Violin Concerto and Fifth Symphony coupling can be heard on an EMI CD (CDE 7 49117 2).
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£195
There are few retailers who'd disagree that this season was dominated by DVD and Plasma screen technology. What's more, the former will be given a real boost this year from falling recorder prices, whilst the latter is only just beginning to build momentum. In this column, however, I thought I'd look beyond the obvious and not focus upon either of them, or even the tepid market for DAB, but instead, take a look to see just how the recording formats are faring these days.

I don't suppose it would come as a surprise to many, to hear that sales of cassette decks have now just about reached the floor. There are very few manufacturers left and, unlike vinyl, there are no small cottage industries building cassette decks, and nor will there be, since they need mass production. Production has contracted to Sony, Teac, Yamaha and Denon. Even these manufacturers have restricted model ranges and they are likely to decline further. I wouldn't be surprised to see one or two of these multinational companies pull out of the format entirely this year.

Yet, however much reduced, there is still a demand for cassette. This leaves manufacturers and retailers in a possibly fortunate position. If you're expecting bargains, think again. Fewer rivals simply means less competition and, with a captive market, prices could well rise.

The same is true of the humble blank cassette. It's becoming less of a commodity product these days, so customers are less likely to check out who is the cheapest, neither will retailers lose too much sleep if they are being undercut on the price of TDK SA90's. Therefore, don't be too surprised to find your local hi-fi emporium isn't that competitive on tape prices anymore.

That having been said, some take the opposite view and, as they aren't making much money on blank tape media anymore, will simply sell tapes as a loss leader for peanuts. CD-R remained reasonably steady over the season, although it has never really fired the public's imagination quite as much as many thought. Blank discs now sell in higher numbers than cassette, and have finally fallen below the 50p a disc barrier, although this is still far higher than similar computer data discs. Machines were priced from about £150 for most of 2002, and the cost of the technology produced at, comparatively low rates (at least compared with DVD), means that prices are unlikely to fall much further.

For the first time in ten years the unstoppable machine that is MiniDisc, appears to be finally on the wane. Sony had kept the format fresh with constant upgrades such as Long Play and then NetMD, which allowed for fast downloading off a computer. Despite this, I became aware of a reduced interest in portable players this season. Sales of full size machines plummeted several years ago, but portable sales remained strong until this Christmas. We haven't seen a huge tail off in sales, but there definitely isn't quite the interest there was a year ago.

The reason for this is obvious for those with a passing interest in computers. Although MP3 hard disc players, and stick/SD type memory portable players have been around for some time, it's only been recently that they have really gained sales.

Although I haven't seen the sales figures, I would imagine that Apple's i-Pod proved a great success over Christmas, and was probably responsible for stealing a good number of portable MiniDisc player sales, in it's own right. Furthermore, it's not just Apple making some impressive recorders. It's now possible to get 128MB of memory for less than £100, fitted to a personal machine. The idea of no discs, which will eventually wear out, should hold great appeal to many.

Just the sort of customer who'd originally rallied behind MiniDisc in fact.

Of course, the format used for storing such information is often low quality MP3. Sadly, many don't appear too concerned by fidelity, as the success of MiniDisc proved. Ironically though, C.D - at least in terms of the personal units - has given a huge boost from MP3. Sales of the portable units remain strong simply because the new generation of personal players will often play MP3's recorded onto a disc via a computer.

Then there are hard disk recorders. This has been the first season with such a product for many retailers, and the Yamaha CDRHDI300 has provided a toe dipping exercise for them. So far there hasn't really been much enthusiasm for the new format, and some retailers think it could be sometime before recording onto a hard-disc really takes off - if at all.

Perhaps the most telling aspect for the forthcoming year is whether those in the business of selling hi-fi will even bother to sell stereo recording formats in the future. Many would argue that recording music in the future - and perhaps video too - will become the domain of the computer. Time will tell, of course, but it will be interesting to see just how close or far apart the two have become in another year's time.

sales of cassette decks have now just about reached the floor.
Advisors in system matching, audio cables and mains power products

List No 81 April 2003

New, Ex-dem and Previously Cherished Hi-Fi
All prices are 10% below market value for rapid turnover
All used equipment guaranteed for six months; new and ex-dem adds
manufacturer guarantee.
New (factory) sealed boxes indicated (New), Ex-dem (Ex-D) or Used (s/h)
Goods mostly shipped next day delivery by TNT. UPS premium service
cost £9 per box UK next day.

DIGITAL

Burmester 970 DAC
TAS Class 1 product (Ex-D)
Gryphon Adagio CD Player (Ex-D)
2nd level upsampling redefines CD! One only!
Naim 3.5 CD Player
HiCap PSU (also for pre-amps)

AMPLIFIERS

Audio Innovations Series 500 (s/h) as new
integrated valve amp with phono input
Audio Research’s classic SP9 III
Rare and exquisite; silver; mint (s/h)
Ayre Acoustics K1 Pre-amp with phono stage
World class, bal/ s-e, silver (Ex-dem, 5 yrs old)
Ayre Acoustics V-3 Power Amp
Ex-Dem, hard to believe it’s solid-state
Bow Wazoo XL
Integrated Amplifier 75 wpc, (Ex-Dem)
"The Wand" silver remote controller (New)
Gryphon Sonata/ Allegro Legato
State of Heart pre-amp with phono stage
Dual monaural, ultimate construction (Ex-D)
Manley Labs 240/100 Monoblocks (pair)
Pentode/ triode switchable, amazing pro gear
Current list is for a revised "Neo" model (Ex-D)

Mark Levinson Power Amplifiers
No 335 (250 wpc) (s/h, mint)
No 335 (250 wpc) (New, sealed box)
No 436 (350 wpc into 8 ohms, doubling) (Ex-D)
PassLabs X-150 Power amp (s/h)
S/h mint condition
PassLabs Aleph-5 (s/h)
60 wpc, s/h RCA and Balanced
PM Components 211SE monoblocks

LOUDSPEAKERS

Audio Physic Virgo (New)
Unused but slight dent (Luxury Cherry)
Kharma Ceramique 1.2 Reference Monitors
Focal tweeter, piano black, crated, as new
ProAc Studio 125 (Rosewood)
New (sealed cartons) changed order
ProAc Future Two (Birds Eye Maple)
Glorious state-of-the art (New)
ProAc Future Point Five (Cherry)
Just run in, mint, boxed (Ex-D)
Revel Performa F30 Three-way monitors
(Cherrywood) Slight dents (Ex-D)
Revel Performa F-50 Ceramic
Latest spec (Cherrywood) (s/h)
Wilson Audio 6.1
Crated, 18 months old, piano black

For updated and comprehensive list of equipment and audio cables,
please visit www.audiosalon.co.uk

Invest in the connections.
And here’s a tip: use a £14.95 bottle of Kontak cleaner to keep them clean.
Way back when hi-fi was valve-powered by necessity rather than choice, an amplifier's appearance was a function of its engineering. Power tubes protruded from the metalwork because they had to, simply to keep cool. Likewise, output and power transformers may have been unwitting works of art, symbols of the simplicity and purposefulness of tubular design, but they sat atop the amplifier base simply because there was nowhere underneath cool enough for them to go. Form was dictated by function: a product's aesthetics were a product of the physics of its engineering and its technology.

Nowadays, things couldn't be more different. Fitting an entire amplifier on one integrated circuit is routine, with only a tiny power supply and some kind of interface with the outside world necessary for it to function. Ironically, in such a climate, designing hi-fi (by which I mean the whole product—audio circuitry, casing, fascia, controls, sockets) has in some ways become harder. How so? Well, all the traditional clues to tell the designer where to put things have now gone. Of course, the basics still apply: a few minutes with a CAD package and he'll have the basic circuit topology mapped out, complete with short signal paths, the maximum distance between low level circuitry and power supplies, rear positioned pots and switches fed by long stalk fascia controls (to minimise sound degrading internal wiring), etc. But after that, what to do?

Almost every new bit of kit that comes onto the market these days seems like just another 'me too' design.

Boxes with brushed aluminium fascias and light gauge pressed steel casings, there are still some avenues where aesthetic and ergonomic expression are very much alive, such as turntables and loudspeakers.

As John Michell's new TecnoDec (this month's cover star) shows, hi-fi's oldest surviving format still has room for novel design. Although not a particularly striking shape, this deck succeeds by the sheer simplicity of form (which slavishly follows function) and the supreme quality and finish of the materials used (Perspex, aluminium, rubber). Then there's the brilliant detailing, such as the tips on the end of the aluminium feet, made from a special type of rubber that's moulded into miniature cylinders, which in turn act as a form of simple suspension!

In loudspeakers, computer audio has proved a powerful driver for new and challenging designs. TDK's brilliant S80 multimedia monitors are a fascinating example of technology permitting innovative packaging, which in turn makes superb sound possible. While it's hard to get a pair of standmounting speakers to image well in an average listening room, squeezing serious imaging from two tiny flat panel speakers (which in theory shouldn't work, according to some) is nigh on impossible. Yet the TDKs succeed, offering walk-around soundstaging thanks to their pencil-thin profile, in turn made possible by their use of the latest generation NXT panels.

Although it's hardly a deluge, we can take heart from the increasing number of interesting, off-the-wall designs coming through to market, spurred on in no small part by developments in technology and manufacturing processes. The new generation of designers—particularly in the loudspeaker field—seems less content to reheat old ideas. From the lavish Italian rosewoods adorning Unison Research valve amplification and diecast extrusions of Cyrus separates to the Perspex sleeving of Apple's iPod and carbon-fibre tubing of Wilson Benesch tonearms— the times they are changing. And not a second too soon, at that!
Building a hand-calibrated machine from select and discrete critical components is what defines true high-end and justifies the price. At digital signal source stage, attention to detail is critical; the smallest errors are amplified by the time they reach your loudspeakers. Now, at £699, there is an affordable alternative to High Street CD players.

Heart Audio have supplied valves and made transformers in the Netherlands for three generations spanning 80 years. For the CD 6000 LE they start with a value-engineered product and add critical components from the mains lead to the damped transport and case through to the all important analogue output stage. Everything after the D/A converters has been removed and replaced with a circuit consisting of two long-life, cool-running valves and four transformers. So we have no OpAmps after the DACs!

Few selected dealers handle this individually-crafted product built by engineers, not assemblers, because only ten units per month have been allocated to the UK.

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- MONEY BACK GUARANTEE
- Trade enquires welcome
The CD73 is the cream of Marantz's first generation CD players, and as such is assured classic status, says David Price.

By now you should have read all about Marantz's brand new DH9300 audio server - one of this year's most interesting and innovative products. Well, warp back twenty years and the company was doing the very same sort of creative thinking with another (then) new technology, Compact Disc. As the CD-73 shows so strikingly, Marantz has never been scared of running with a novel idea.

The top model in the company's very first generation of CD players, it shares (as was the tradition with Marantz until very recently) much of its genetic make-up with a Philips machine - the CD303. To wit, its line up of component parts reads like a wish list from any eighties digiphile. The jewel in the crown is its CDM-1 Pro mechanism complete with glass crystal lens. Mounted in a massive, sliding tray assembly (as per late eighties Meridians), when you press the open/close button the entire transport assembly slides out!

Downstream of arguably the best CD transport ever designed lies something that's still controversial today - Philips TDA 1540 14bit, 4x oversampling chipset and digital filter. That's right, ten whole bits less than a new £200 Toshiba DVD-A player! The result is not as bad as you'd expect though - quite the reverse in fact.

The fascia panel - in Marantz's trademark champagne gold of course - is a riot. The display consists of fifteen green LEDs set behind a chunky Perspex strip, under which another fifteen are mounted. The green ones light up to show you which tracks are due to be played, while a single red one underneath shines to tell you the number of the track playing. Bonkers! Couldn't they afford a numeric LED display? Upon reflection, considering that it would have been designed in 1981, the answer was probably no!

Continuing the theme, the CD73 gets a range of additional LEDs. Inside the disc transport recess - which is thoughtfully exposed by a top-mounted Perspex inspection hatch(!) - you find a bank of three green LEDs either side to cast light on the disc you're spinning. Was that homage to the world's most advanced turntable, the Technics' SL 10 of five years back, one wonders? In the frontal disc transport window are three more - one for 'Laser', another for 'Standby' and another for 'Pause' - just to let you know what's going on in the new digital age. And then there's the power LED, and finally the bright blue backlit 'Compact Disc Digital Audio' logo!

It's all great fun - and an object lesson in how to suss up the process of playing silver discs, but to portray the CD73 simply as the digital equivalent of the Blackpool illuminations would be to miss the point. The CD-73 sounds warm and involving. It's an old cliche that the first generation Philips-based machines sound closer to analogue than anything digital subsequently produced - but it's true. You get a soft and beguiling sound that really suits gentle, acoustic music beautifully - in fact, it flatters it. This machine is rich and sweet in the sense that 1970s Linn LP 12s were - it pulls you in and envelops you rather than trying to assault your senses with the nth degree of detail resolution and dynamics. Happier with the strains of Glen Campbell's 'Wichita Lineman' than Goldie's 'Timeless', it makes the best of certain types of music and renders others dull and undynamic.

Marantz's CD73 is a paradox. It has one of the smoothest, most comforting and unchallenging sonic footprints, yet is an immensely charismatic machine. Unlike so, so many modern digital disc spinners, you really know where you are with this bit of kit and have to learn to love it - you can't just expect it to accommodate you. These days, it's getting rare. After all, it originally cost over £500 in 1983 (about a third more than a Linn LP 12 at the time), so would never have exactly been a volume seller. Still, you can find them for £250 or less if you look. You must try before you buy however, ensuring that you check the transport tracks the disc properly. A good example should play anything - including modern 80 minute CD-Rs!
A reference guide to Britain’s manufacturers and distributors

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**BLACK RHODIUM** 32, Denwrttum Centre, Clarence Street, Derby DE1 2BU. Tel: 01332 361390. Fax: 01332-030534. Online: info@blackrhodium.co.uk Website: www.blackrhodium.co.uk RHODIUM offers a complete cable solution from our FIRST BASE brand. Our unique wide-bandwidth cable performance gives you a more natural sound. We also offer very competitively priced home cinema cables and all the tools you need to make sure you get the very best out of your system.

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DOUBLE PLATINUM?

Creative Labs' new Sound Blaster Audigy 2 Platinum eX is the only THX-certified consumer soundcard capable of 6-channel DVD-Audio quality 24-bit/96kHz recording. Just £199 buys you the new card, which is based on the Audigy 2 processor and the convenient External I/O Module, complete with three analogue stereo connections, optical and coaxial digital I/O, full-sized MIDI I/O, and two SB1394 (FireWire) ports.

It remains the only available solution for DVD-Audio playback on the PC - those equipped with a DVD-ROM drive of 6x or more can get full 24-bit/192kHz playback from DVD-Audio discs. Creative MediaSource software is included, which can even up-mix stereo MP3 music into full 6.1 surround sound. Point your browsers at www.europescreative.com.

DOLBY HITS THE PC

Dolby Laboratories has announced its certification of C-Media Electronics' software-based implementation of the real-time Dolby Digital encoder for the CM19739 6CH AC97 chipset. This means that PC users with Intel or AMD-based PCs equipped with C-Media chipsets can get true Dolby Digital surround-sound.

Eric Cheng, president and CEO of C-Media, is quoted as saying, "With this software implementation of the real-time Dolby Digital encoder technology, existing and future customers who are using C-Media's PCI or AC97 audio chips can obtain high-quality Dolby Digital audio from the S/PDIF output much more easily, and from more sound sources, than ever before.

Not only is the digital signal free from the usual problems present in traditional analogue outputs, but it also reduces the number of wires needed between the PC and a home cinema system. With the real-time Dolby Digital encoder technology, data is digitally transmitted from the PC to the home theatre system via a single cable, instead of the three pairs of cables used with previous multichannel analogue outputs." Click on www.dolylabs.com for more information.

SONY'S MEDIA PC

Sony is calling its new VAIO PCV-RXG408 a 'media PC' - a computer that doubles up as a personal video recorder (PVR). The £1,600 machine, which requires additional expenditure on a monitor, is a rival to a forthcoming generation of new products from the likes of HP and Microsoft, running the Media Center edition of Windows XP.

The new VAIO uses Sony's Gigapocket software, which creates a framework that lets it interact with other multimedia devices such as networked televisions. It records MPEG video from sources including an analogue television tuner card, S-Video and composite inputs. Point your browsers at www.sony.com.

THE NEW MINI

Erstwhile bosom buddies Intel and Microsoft have come together again on a brand new design project to develop a portable media player (PMP) to work with the new Microsoft Media2Go software platform. Samsung and ViewSonic have also joined Intel on the project, which aims to give easy access to video and audio media files on the move.

The player is designed to be small enough to fit in a coat pocket, making it possible to use in-car, on public transport and in aeroplanes. High-quality video playback is promised, thanks to Intel's new Xscale technology-based processor. A high speed USB 2.0 connection takes care of data transfer duties from a PC or PVR (Personal Video Recorder). For more on this, click on www.intel.com.
MEDIA STUDIES

Verbatim, a subsidiary of Mitsubishi Chemical Media, is the first manufacturer to offer 4x DVD+R media for data and video applications, thus reducing recording time by nearly fifty percent. Its parent company has developed a proprietary recording dye technology based on its Metal AZO dye, which enables recording at 2.4x speeds.

Called Advanced AZO, it is used to produce a recording layer with an improved power margin and greater sensitivity that ensures stability at faster recording speeds. It can also sustain 1x and 2.4x recording, making it backward compatible with earlier drives. The discs are available in packs of five or ten, with the option of a fully printable surface.

Verbatim has also announced a range of neat new media storage accessories, including CD Sleeves and Slim Line Empty Cases. The former allow users to distribute data, safe in the knowledge that it will be dirt and damage-free. Made from strong, lightweight paper, they have plastic windows for easy viewing of what is on the disc. Price is £4.99 for a pack of fifty. The Empty Cases are just 5.2mm in thickness, but are strong and well finished. Coming in packs of five, with different coloured cases for easy identification, they cost £5.99. Finally, there's a new pack of rather natty 8cm coloured CD-R blanks - ideal for storing MP3 music files - at £9.99 a go. Check out www.verbatim-euroDe.com for more info.

BROADBAND BRITAIN

The news that broadband is proving a massive success in the UK, since BT decided to slash its prices, should come as no great surprise. Following the announcement that 100,000 more broadband users connected to its network in January, the telecoms giant now has over 500,000 in total and is on course for its one million target by the middle of the summer.

Pierre Danon, chief executive of BT's retail operation has said that getting to one million users should be relatively easy compared to attaining its long-term goal of having five million homes on the service by 2006. He also added that there will be a new portable 'internet radio' on sale within months, which can play music downloaded from the net.

BT sells wholesale broadband access to its own Internet service provider, Openworld, as well as other Internet Service Providers. It has also started selling a budget 'no frills' package for £27 per month. Check out www.bt.com.

CREATIVE THINKING

The people who brought us the world’s first hard disk-based MP3 portable, in the shape of the DAP Jukebox, have announced its latest and greatest incarnation.

The new Jukebox Zen digital audio player comes with USB 2.0 support for ultra fast file transfers - approximately ten times faster than USB 1.1. The new Zen also claims improved battery life, now up to fourteen hours.

It retains the original's 20GB hard disk, capable of storing up to 8,000 tracks in either MP3 or WMA formats, plus its diminutive dimensions. Creative Labs says it fits into a shirt pocket with ease. On sale from the end of February, it costs £329.99. For more information, click on www.europe.creative.com.
TUNER IN THE NET

Just in case you hadn't noticed, internet radio is here. Onkyo's brand new TX-NR900 receiver is one its most complete exponents to date, reckons David Price.

Five years ago, MP3 was the preserve of spotty geeks with long hair and an unhealthily expansive collection of 'Dr Who' and 'Blake's Seven' videos. If ever there was a geek audio format, this was it. What ensued however, was a remarkable transformation which saw this compressed computer audio format sprout legs, then get up and crawl off PC hard drives towards the mass music market. A wealth of 'digital audio portables' were launched, and then hard disk-based music players. Meanwhile, streamed internet audio in MP3, WMA and Real Audio formats began to flourish. Microsoft's Windows Media Player 7 - among others - recognised this trend by providing a neat net radio tuner built in. Suddenly your listening options weren't limited to the usual BBC radio channels and a couple of local independents.

To be frank, the sound quality of streamed radio broadcasts over the net is such that you're unlikely to cast your specially tweaked Graham Tricker Signature Leak Troushline, complete with gold plated, motorised, twenty-five element FM aerial, aside. Despite the advent of broadband, which has made higher bitrates and less interruption to the audio-streaming possible, the sound isn't any great shakes - expect 50kbps from most BBC stations if you're lucky.

As a multi channel amplifier, the Onkyo is good but not brilliant. Frankly it's unfair to compare a £1500 AV amp with all these bells and whistles with a classy two-channel combo such as Cyrus's £1500 AV amp with all these bells and whistles with a classy two-channel combo such as Cyrus's B/PSX-R - so no prizes for guessing which is better! But suffice to say that if you're looking for a good heart for a half-decent AV system (keeping your hi-fi for the other room), you could do far worse. It has a generally sweet and smooth sound with oodles of easy power (a claimed 7x110W RMS) and good, strong surround soundstaging and image articulation. It's a bit less incisive (and, frankly, less tiring too) than most other Japanese rivals, which gets my vote without hesitation.A brave and interesting product, and well worth auditioning.

Onkyo TX-NR900 £1599
Tel: +44 (0)1788 573 100
www.onkyo-emea.net/uk/
Even PCs are getting in on the multichannel act. Philips has got the market surrounded with its new range of 5.1 channel soundcards. David Price experiences the new PSC605 Sonic Edge.

It's not new of course. A number of soundcards from various manufacturers - not least Creative Labs - have been doing surround soundcards for several years now. But when Europe's largest consumer electronics giant gets in on the act, it really means something.

To wit, enter the Sonic Edge, part of a new range of PC soundcards featuring Philips' Thunderbird Avenger audio accelerator (don't you just love marketing men?). It's the cheapest in the range of 5.1 products, under the - wait for it - Seismic Edge and Acoustic Edge. The Dynamic Edge, in case you're wondering, is a mere 4.1 and thus doesn't get to play with the big boys. They all have the capability to, as Philips puts it, "transform all conventional 2-channel stereo sources on the PC platform into stunning multichannel surround sounds."

What's special about this card is its automatic surround sound processing. Working in a way somewhat akin to Dolby Pro Logic II, Philips' QMSS (Qsound Multi Speaker System) technology takes any 2.0 stereo feed and spatialises it into 5.1. It works with any sound source the computer encounters, from CD-ROM, DVD and hard disk audio to streamed media from the internet and even external sources fed in via the analogue or digital inputs. There's also QSurround for those using just two speakers, but want something of the surround sound experience.

The card itself has a wealth of connections - two S/PDIF digital inputs and two 3.5mm analogue inputs (CD and Aux), plus more mini jacks for Line In, Mic In, Front speaker output, Surround speaker outputs, S/PDIF digital out (or Centre LFE channel) and the usual MIDI/joystick interface.

One useful feature is the hardware's automatic digital level adjustment, which adjusts the card's input gain to the level of the digital input being received. The S/PDIF output can send Dolby AC3, PCM or DTS to an external decoder. No onboard conversion for these is provided, and the card's DSP is full duplex, but only works at 16bit, 48kHz resolution maximum.

The package includes the PCI soundcard itself, a Quick Start Guide, a CD audio cable and a software installation CD. It also comes bundled with MusicMatch Jukebox, Sonic Foundry's Acid Xpress, Qsound Audiopix, along with a powerful Philips application called Sound Agent which constantly monitors input signals and displays user settings - an elaborate control panel, if you like. Installation is the usual matter of punching out a blanking plate at the back (if necessary), plugging it into the motherboard, connecting the internal leads up, switching on and letting Windows do the driver auto-install.

Given its £40 retail price, the Sonic Edge sounds very good. This is not, you understand, up there with the £200 24/96 soundcards. However, it runs the likes of Creative Labs' Audigy 2 or no DVD-A surprisingly close. It has a clean and confident sound that lacks any conspicuous nasties. In 2-channel mode, its onboard DACs compare fairly well to my reference Cambridge Audio DACmagic 2. The latter is smoother and sweeter, with a slightly more fulsome bass. However, given that this DAC usually whips cards at this price point by a massive margin, it's proof that this is a decent, well designed product.

The main failing of the Sonic Edge is indeed in its two-channel soundstaging, but I guess this is missing the point. As soon as you plug in a rear set of speakers, it senses the change and starts doing its 5.1 channel stuff. Give it a decent set of baby multimedia speakers, such as ELAC's Cinema One, and you get a surprisingly expansive and enjoyable performance. It's a brilliant upgrade for bundled computer soundcards, but personally I'd spend the extra £50 on an Audigy and get all that extra functionality, switching and software. If you're on a strict budget however, you could do much worse.

Philips PSC605 £40

www.philips.com
The new RioVolt SP150 is SONICblue's answer to the rapidly growing CD-based MP3 portables market. David Price is neither shocked nor stunned.

Funny how the world’s first commonly available digital audio portable, the Diamond Multimedia Rio PMP300, cost the best part of £200 when launched some four years ago. Nowadays, prices have tumbled to well below the £100 mark, and the lower end of the newer wave of CD-based MP3 portables will set you back less than half this. Why then is SONICblue launching a new £150 machine this late in the day? They must think the luxurious RioVolt SP150 is just a bit special.

CD-based MP3 players actually make a lot of sense. If you can live with their bulk - they can, by definition, only be as small as a 12cm Compact Disc after all - then you get an awful lot of functionality for not very much cash. As well as playing standard audio CDs, the RioVolt SP150 spins data CDs with MP3 and WMA files. Disappointingly, there’s still no AAC or MP3 Pro support however, meaning you can fit over twenty hours of your favourite tunes onto a single disc. As virtually every computer now comes with a CD burner and authoring software as standard, it really is very easy to make MP3 CDs. And because memory isn’t at such a premium, you can burn the files at high bitrates (192-320kbps) so you’ll get more than half-decent sound, too.

Frankly, it’s not the sexiest looking audio portable on the block - that accolade probably goes to the top Sony D-EJ1000 Discman. Nor does it feel a million dollars, being very much from the ‘plastic fantastic’ mould. Still, neither is it terminally flimsy and certainly doesn’t feel as cheap as some. To circumvent the most common problem with CD portables, the SP150 has some pretty serious shock protection (running up to 16 minutes!), although it’s still not gravity proof as a solid-state based player would be. It has a large, three line backlit LC display that makes it easy to navigate through song titles and menus - it even shows MP3 ID3 tags and audio CD text too.

In other respects, it’s pretty standard fare. You get a battery life of around twenty hours from two AA batteries, which isn’t a patch on Aiwa’s £50 CD-only XP-V731 which does a passable impersonation of an eternal flame. It sports a crisp control layout, and offers the usual adjustable EQ, Repeat and Shuffle play modes. The programmable playlist facility is nice, letting you tee up an entire day’s listening before you leave the front door - should you be so inclined.

The RioVolt comes supplied with a middling set of in-ear phones (as usual, get a pair of £20 Sennheiser MX500s), and has the option of a car cassette adapter and wired remote control.

The RioVolt SP90 doesn’t sound bad, but I can’t stop thinking about Philips old exPanium EXP401 which sounded so much better. Spinning 320kbps MP3 CDs, this player is relatively innocuous with a soft, smooth and rather unenergetic bass, a relatively dull and lifeless midband and a perfunctory treble that doesn’t really get inside the recording. Dynamics are pretty flat and there’s no real sense of musical involvement. By contrast the Philips was an altogether more lucid and involving performer. It was warm but very engaging.

Move to standard audio CDs and things to get better. The RioVolt assumes a strong sense of rhythm and grip. Bass gets tighter and tauter, with a good deal more energy. Midband is on the analytical side - clinical even - but there’s a wealth of detail, a reasonably crisp (and much better extended) treble. Stereo imaging is well defined, and the images project out into space better. Overall then, not a bad result but I can’t help thinking that the RioVolt SP150 is just a little too ‘digital’ sounding compared to the warm, lush, big hearted character of the aforementioned Philips. And if you don’t require MP3 playback, you could save yourself a goodly sum and go for Aiwa’s perfectly good XP-V731.

SONICblue RioVolt SP150 £149
LOGICAL CHOICE?

VideoLogic’s new ZXR-200 promises great things at the budget end of the multimedia speaker market – David Price tries them out.

The best value loudspeakers you can buy to use with your PC have been — in my humble opinion — TDK’s S80. No other rival has matched its brilliant NXT technology, superb style and fine design — all for only £90. However, if there is one company that could severely dent the S80’s glistening halo, then it is VideoLogic, a company with a serious engineering department full of capable audio engineers willing to design stuff that sounds as good as it looks.

No, this isn’t me reading from their press release — rather, it’s based on my experience with the Sirocco some three years back. Here was a 2.1 sat/sub system that knocked my socks off, thanks in no small part to the high quality Audax drive units and sound engineering practices used. Despite its diminutive dimensions, it was good enough to use as hi-fi. In fact, I know someone who for quite some time used a Linn LP12/Aro/Karma and Michell ISO to drive one, with brilliant results!

VideoLogic’s new ZXR-200 is not a Sirocco replacement — at just £50 it’s an altogether cheaper product. It comprises two smallish (85x112x98mm) satellites, employing 80mm drivers. Captive speaker cables terminated with phono connectors run from either satellite via 3m leads to the subwoofer. This is a sturdy wood cabineted affair that measures 165x250x340mm, and has front and side mounted bass ports. Inside is a 130mm woofer and an amplifier pushing out 25W RMS. Front panel controls for front, rear, centre and subwoofer are provided, along with a rear mounted power switch. Round the back, six phono inputs and five phono outputs are provided. Considering its low, low price then the ZXR-600 is incredibly sturdy — the total package weighs no less than 10.6kg!

The package includes everything needed to get up and running quickly, with connecting cables, satellite speaker stands and a clear, concise user guide. The clearly labelled connectors and wires mean it’s breeze to set up — I got best results with the sub under the table and the satellites blu-tacked onto my desk top, all nice and rigid! Leaving the system on all the time also considerably helps the sound — along with a good run in period. For the purposes of the test, I hooked them up to VideoLogic’s own SonicExplosion soundcard, running in 2 channel mode.

First, I have to say how impressed I was with their general build — at full volume and with the bass control turned right up, they steadfastly refused to distort. Moreover, they managed to go far louder than their size or price would suggest. For the money, the ZXR-600 threw out a mighty impressive sound. The sub could be adjusted not to boom, and the treble control gave a useful extra zing to their rather rolled off high frequencies. Suitably tweaked, I found them most amenable. Clean, open and smooth with — importantly — none of the nasties associated with cheapo speakers, they proved a good listen.

Bass was warm, and displayed no signs of ‘port puffing’ which budget boxes are often wont to do. Midband integrated quite nicely with the bass — there was little sense of listening to two entirely separate speakers — and there was a decent degree of detail.

Treble was the biggest disappointment, sounding just a little too curtailed for my liking, but at least it wasn’t coarse, and at the price it really is churlish to complain. Imaging was excellent, this combo throwing out sounds into space with more confidence and precision than a lot of ‘proper’ hi-fi designs. A very pleasant listen then — it was only when I switched on the TDK S80s (costing nearly twice as much) that I realised that for a relatively low outlay I could get dramatically better results.

And therein lies the problem with the ZXR-600s — at their price I’d say they’re unbeatable. Their sheer ‘couthness’ and civility — along with a lack of any obvious sonic failings — is a fantastic achievement considering their £50 selling price will also buy you a pair of plastic Sony speakers that are about as nice to listen to as a dentist’s drill. Only the fact that an extra £40 spent on the TDKs detracts from the brilliance of this VideoLogic package. But then again, if you can’t spend the extra, you’ll not be disappointed with these.

Recommended.

VideoLogic ZXR-200 £49.99

www.videologic.co.uk
Here’s a list of products that are a good buy. We’ve tried to cater for a range of tastes, identifying strong products in every area. We’re agnostic so you’ll find a wide range of products, from valve pre-amps through to MiniDisc players. Products marked * are recently out of production but make a good second-hand buy.

Prices shown are those at the time of the review

**COMPACT DISC**

**ARCAM FMJ CD23** £1100

This British-built player is extremely versatile. Controlled and detailed with a musical insight that few match, (Jul 2000)

**CAMBRIDGE CD45SE** £200

A touch soft in the treble but outstanding in every other respect. (Feb 98)

**KENWOOD DP-7080II/EP** £180

Has great clarity and presence for the price. Not as naturally expressive as the CD45SE though, (Feb 98)

**LINN KARIK III** £1775

Under rated and overlooked, the final Karik was a gem. Superb transport gives transport a briskly tight, grippy dynamic sound, albeit tonally rather dry. (May 95)

**MARANTZ CD-17 KI-S** £1100

The Marantz excels in all areas. Without doubt this is one of the most involving CD players on the planet. Build quality is also exemplary. (Sep 98)

**MARANTZ CD-43**

Similar to the CD-63SE but more powerful bass and an all-round smoother sound. The famous KI tweeters pay off again. Whether or not it is still pre-eminent against the vastly improved competition is a matter of opinion. Some may prefer the simpler RB250 at £130. (May 95)

**MERIDIAN 506 20-BIT** £1100

Very detailed and revealing player. More cerebral than visceral sound-play, however. (May 95)

**MUSICAL FIDELITY X-RAY** £800

Commonsense sturdy CD player of exceptional ability. Clear and detailed with high quality internal processing system. The X-Ray is inclined to show up poor recordings, but it’s only doing its job! (Feb 99)

**NAD 5500** £1000

This dynamic top of the range Silverline spinner delights with any type of music. Exciting, sophisticated sounding and highly recommended. (Jun 2000)

**ROKSAN CASPIAN** £895

The Caspian has a smooth, slightly bright sound with some of the clearest treble in the business. Very engaging, dynamic character. (Aug 97)

**ROTEL RCD 951** £300

HDCD capability at a midrange price. Plain Jane looks but solid construction. There is some higher than average measured distortion which may take the edge off this otherwise tempting product. (Aug 99)

**SONIC FRONTIERS TRANSPORT** £699

Cutting-edge design and technology combine to make this one very desirable product. The only problem is the fantasy hi-fi price. (Sep 98)

**TEAC P-30** £200

Cheap it isn’t, but then it sounds like a million dollars digital. Nothing short of superb. (Jun 97)

**TEAC VRDS-T1** £600

Excellent mid-price silver disc spinner with a powerful, expansive and warm sound. Easily beats most sub-£1000 designs. A good choice for the budget conscious who want the best. (Feb 95)

**DACs**

**CAMBRIDGE AUDIO DACHMAGIC 3** £99

Superb value for money with extensive facilities and solid, detailed sonics. Upgrades any sub-£300 player.

**DCS ELGAR** £8500

Future-proof convertor which will handle 24/96 and 24/192. Extremely open and natural performer. (Nov 97)

**MIDIAN FLYING COW** £299

A taste of the high end on a budget. Rich, clean, punchy sound transforms budget CD players.

**MUSICAL FIDELITY X-DAC** £300

A bargain for normal CDs and even better with HDCDs. (Nov 97)

**SONIC FRONTIERS PROCESSOR 3** £699

Quality never comes cheap! This DAC oozes class and when matched with the Transport 3 is certainly up with the best. (Sep 98)

**DACMAGIC 3** £99

Excellent as a DAC and doubles as an ADC for archiving to CDR. (Jun 98) Great value, as is junior version Flying Calf at £109, (Feb 99)

** Systemdek IIX900/RB250 £330

A fine all-rounder and easy to upgrade too. More depth and breadth than easy Rega Planar 3. (Sep 94)

**VESTAX BDT-2000** £225

A stylish looking deck with infinitely variable speed 16-90 rpm, DC belt drive and built-in MM phono stage. Good value, with plenty of chassis room for alternative arms, if required. (Sep 99)

**TONEARMS**

**HADCOCK 242 SE** £649

Latest of a long line of unipivot arms. Added mass makes the 242 suitable for both low compliance MCs and straw-in-the-wind high compliance types. Revised geometry and chromium plating completes a first-class job. (Jun 2000)

**NAIM ARO** £975

Truly endearing and charismatic performer - wonderfully engaging mid-band makes up for softened frequency extremes

**REGA RB300** £180

Some may prefer the simpler RB250 at £130. Detailed, tight, rhythmic sound but tonally rather grey and cold-sounding. Still excellent value, though.

**TURNTABLES**

**LINN SONDEK LP12 BASIK** £1100

Off the pace these days in many respects but still an extremely sweet and engaging listen with a quintessentially analogue sound.

**MICHELL GYRODEC SE** £775

Exquisitely built, infinitely upgradable deck that gives true high end sound at mid-fi prices.

**MICHELL ORBE** £2000

Fantastically capable all rounder with commanding, powerful, detailed sound that gets the best from almost any arm and cartridge. Supreme build, brilliant value. (Apr 95)

**ORIGIN LIVE STANDARD (KIT)** £145

Good in standard form with AC motor; frighteningly good with a DC motor and battery PSU.

**PINKTRIANGLE TARANTELLA680**

Not only does the Tarantella have more style than a catwalk full of models, it also combines PT’s usual clarity with real authority. (Oct 97)

**REGA PLANAR 2** £214

Brilliant starter deck with extremely polished manner. Better built £274 Planar 3 is a great all-in-one package that eats mid-price CD players for breakfast.

**ROKSAN XEREXES X** £1295

DSU or XPS 3.5 power supply £150/170 extra. Excellent pitch stability from a new Swiss motor and outboard power supply. Very tight bass, fine dynamics and revealing clarity. (Jan 97)

**STANDARD (KIT) £145**

A fine all-rounder and easy to upgrade too. More depth and breadth than easy Rega Planar 3. (Sep 94)

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New long term choices for a fast moving industry
SOUNDEDER SEDLEY £399
Combines transparency and fine dynamics with excellent rhythmic ability. (May 98)

PRE-AMPLIFIERS

AMC 1100 £150
Suffers from un-defeasible tone controls but an extremely good value piece of kit.
Partners the similarly budget level AMC 2200 power amplifier, also at £150. Comfortable beginners’ choice. (Mar 99)

AUDIO ANALOGUE

BELLINI £475
Showcases AA’s characteristic mix of clarity and musicality and blasts the competition. (Apr 98)

CHORD CPA1800 £1800
Clarity, insight and control are second to none - an addictive mixture. (Mar 98)

CROFT VITALE £350
A modestly priced valve pre-amp with exceptionally transparent performance. MM phono stage plus three line stages are standard. Volume controls are separate for each channel, thus giving balance adjustment. A remarkable item in all respects. (Feb 2000)

XTC PRE-1 £1000
Almost valve-like in its smoothness, the line-level Pre-1 is warm and seductively clear. (Nov 96)

POWER AMPLIFIERS

ARCAM 9 £400
With 70W on tap, the 9P will drive most loudspeakers with a spacious and detailed sound. Good bass welly too. (Dec 96)

CHORD SPM400 £1400
There’s a sense of effortless power in the Chord that gives music real scale and presence. (Mar 98)

MARANTZ MODEL 9 £800
Authentic reproduction monoblocs still more than cut the sonic mustard. Highly expensive and highly sought after. (Mar 97)

MICHELL ALECTO £1989
Crisp, clean and beautifully controlled with gorgeous styling. Partnered with the £1650 Orca this is a superb winning combo. (Oct 98)

MUSICAL FIDELITY X-A200 £1000/pair
200W of high-end monobloc power in a grooved tube. (Aug 98)

NAIM NAP180 £1060
Partnered with a NAC22, this has classic Naim control, and a superbly rhythmic presentation.

TUNERS

CAMBRIDGE T500 £180
An extremely engaging tuner with a performance at odds with its low price. Not exactly a Troughline, but you may not notice... (Feb 99)

CREEK T43 £399
Excellent detail, separation and dynamics. A great little tuner and unbeatable at this price. (Play 98)

MARANTZ ST17 £600
A positive droughtmouth of a tuner. Sweet and refined but with a heavy punch when needed. A tuner of this quality demands a decent aerial. (Jul 99)

MISSION CYRUS FM7 £300
Clear and lucid sound puts it up with the best. Superb build too. (Apr 94)

NAIM NAT03 £595
The NAT03’s warm, atmospheric sound is further proof of Naim’s proficiency with tuners. (Sep 93)

SONY ST-5A3£55 £250
Beguiling RDS tuner for the sonically discerning. Good ergonomics and sensitive too. (Apr 97)

CASSTE DECKS

AIWA AD-SS70 £200
Sonically a very decent machine at the price. Comes fitted with Dolby B, C and the dead handy Dolby S. (Apr 96)

AIWA AD-SS95 £300
A stable transport, superb head and Dolby S. (Apr 97)

KENWOOD KJ-5080 £160
A simple deck, but excellent-quality head and transport, give top quality sound. (Oct 96)

LOUDSPEAKERS

PIONEER CT57405 £430
A great piece of engineering from Pioneer, with first-rate sound. (Jun 96)

YAMAHA KX-5805 £250
The SE tag is more than a marketing gimmick. Sound is solid and clear with Dolby S. (Sep 97)

Castel EDEN £469
Impressively vice-free 'speakers that offer great transparency and involvement. One of a select band that simply makes music regardless. (May 97)

Kfs CRESTA I £100
Delightfully sophisticated presentation for the price. Won't blow the roof off, but will deliver a very musical sound. (April 2000)

KLIPSCH HERESY II £110
An outstanding high sensitivity loudspeaker with midrange and treble horns coupled with infinitely baffle 12" bass driver. Effortless, fast and accurate. (Play 99)

MISSION 751 £495
Cracking mid-price mini towers combined HDA drive units and metal dome tweeters with surprisingly warm results. Benign load characteristics makes them great for valves.

MISSION 20 £170
Characteristically fast, punchy Mission sound from the Aerogel mid/bass and silk-dome tweeter. (Jul 98)

Kef Cresta I loudspeakers
A very musical sound
**MINIDISC PLAYERS**

**KENWOOD DM-9090** £500
One of the best MD players yet. ATRAC 4.5 gives clean and very musical recordings from this Kenwood. (Jan '98)

**SONY MDS-JB930** £250
Great mid-price machine that adds better build and facilities to the '530's already excellent sonic.

**SONY MDS-JA50ES** £1300
This Sony can put the wind up Nakamichi cassette decks when used with better blank MDs. (Apr '98)

**SONY MDS-JE55ES** MiniDisc recorder £520
The best sounding MD deck made so far, thanks to awesome build and heroic ATRAC-DSP Type R coding.

**SONY MDS-JE510** £300
An impressive sound and unmatched convenience make this MiniDisc player an excellent buy.

**DVD PLAYERS**

**DENON DVD-5000** £1600
Monster build, as you'd expect at this price. Facilities and gadgets galore and drop-dead high end looks. A very smooth and sophisticated sound, although not as good as similarly-priced CD players. (Mar '99)

**PIONEER DV-717** £700
Well built and a solid performer, with a 'true' 24/96 digital output. Facilities in abundance and a controlled, exciting way with CD replay. Shame it lacks a Dolby Digital decoder! (Sep '99)

**PIONEER DV-5725** £490
One of the best buys in the DVD market. Available in a dodgy white case, but the facilities and performance more than make up for this. Excellent with both music and visuals, and a whole host of up to the minute facilities to keep you occupied. (Mar '00)

**HEADPHONES**

**JECKLIN FLOAT MODEL TWO** £99
Wonderful panel-like and open sound from these exotic-looking headclamps. Do not wear in public unless you like being made a fool of!

**COCHORD COMPANY**

**CHAMELEON 2** £901m
One of our favourite favourites, the Chameleons are musical performers with a smooth yet open sound.

**DYM RESON** £401m
Neutral and transparent, and a steal at forty quid!

**NORDOST BLUE HEAVEN** £1501m
Some of the fastest and most transparent cable around. A simple and effective upgrade.

**VAN DEN HUL ULTIMATE THE FIRST** £26010.6m
Carbon interconnects that help you forget the electronics and concentrate on the music. Miraculous transparency.

**LOUDSPEAKER CABLE**

**Nordost Blue Heaven**
A simple and effective upgrade

**CHORD COMPANY**

**RUMOUR** £9.951m
The Rumour is our reference at the price. Tight and tuneful bass mixed with air and space results in a cracking cable for the money.

**DYM RESON** £6.951m
This cable has a transparency of sound that's rarely heard at the price. Excellent value for money.

**NORDOST BLUE HEAVEN** £375/1m pair
This isn't cheap, but it sounds absolutely fab. An open and spacious sound that simply carries music.
<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>Retail Price</th>
<th>Sale Price</th>
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<tr>
<td>Nakamichi DR-3</td>
<td>A great machine with Nakamichi's legendary heads. The lowest cost 'true' Nakamichi at the time, retailing for £650.</td>
<td>£3,000</td>
<td>£1,600</td>
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<tr>
<td>Nakamichi CR-7</td>
<td>The last of the great ones, and definitely the best Nakamichi ever (yes, better than a Dragon)</td>
<td>£1,400</td>
<td>£850</td>
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<tr>
<td>Yamaha TC-800G</td>
<td>Early classic in serious cassettes. Its ski-slope looks got it a cult following once it had ceased to be simply ugly.</td>
<td>£1,200</td>
<td>£650</td>
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<td><strong>CD Players</strong></td>
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<tr>
<td>Meridian 207</td>
<td>Beautifully built two-box with pre-amp stage. Very musical although not as refined as modern mainstream gear. No digital output.</td>
<td>£995</td>
<td>£600</td>
</tr>
<tr>
<td>Pioneer PD-91</td>
<td>Built-to-last player with easy upgrade routes for modellers. Not knockout as it stands but get one cheap and have a go!</td>
<td>£595</td>
<td>£350</td>
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<tr>
<td>Cambridge CD1</td>
<td>The first two box player with weighted mechanics and even an optional Droopster pre-amp. Radical and effective at the time - a classic.</td>
<td>£1,175</td>
<td>£595</td>
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<tr>
<td><strong>Amplifiers</strong></td>
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</tr>
<tr>
<td>Nakamichi DR-2</td>
<td>Ancesters of hi-fi, consequently expensive nowadays. As with all vintage valve stuff, overhauling is de rigueur before use, using original parts if possible.</td>
<td>£1,175</td>
<td>£595</td>
</tr>
<tr>
<td>Nakamichi CR-7</td>
<td>Line of 'good for their time' pre-amps. Use of EF86 pentode valve for high gain rules out ultra performance. Not the highest-fi.</td>
<td>£3,000</td>
<td>£1,600</td>
</tr>
<tr>
<td>Yamaha TC-800G</td>
<td>Early classic in serious cassettes. Its ski-slope looks got it a cult following once it had ceased to be simply ugly.</td>
<td>£1,200</td>
<td>£650</td>
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<td><strong>AERIALACOUSTICS</strong></td>
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<td>Monobloc Power Amplifiers -</td>
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<td>£1,350</td>
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<td><strong>Cassette</strong></td>
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<tr>
<td>CAV-150</td>
<td>Multi-Channel Amplifier (6 x 150w)</td>
<td>£3,799</td>
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<td>M-1295ie</td>
<td>Semi-Active Bipolar Loudspeakers (Piano Black)</td>
<td>£1,800</td>
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<td>M-207</td>
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<td><strong>Turntables</strong></td>
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<tr>
<td>Garrard 401</td>
<td>A legendary turntable.</td>
<td>£1,400</td>
<td>£850</td>
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<tr>
<td><strong>Speakers</strong></td>
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<tr>
<td>Quad 22/11 Pre/Power</td>
<td>One of the all-time classic valve amplifiers. Unusual circuit but it works beautifully. 22 pre-amp not up to today's standards.</td>
<td>£1,400</td>
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beyer dynamic

AURAL STIMULATION

Distributed by Henley Designs
01235 511166 www.henleydesigns.co.uk
email: info@henleydesigns.co.uk

LEAK SANDWICH
Rather warm sounding big infinite baffle but cheap with it. With a reasonably powerful amp can sound quite satisfying.

LOWTHER PM6A
High quality full-range driver, still manufactured. High sensitivity, as fitted to many classic horn designs.

MAGNEPLANAR 6MGs
Touch dry in the bass but a technological loudspeaker with genuinely musical abilities.

MISSION 770
Father of the 77 range which continues to this day. Veyl mannered with a warm sound and a kind load to amplifiers.

QUAD ESL57
Unveiled. Properly serviced there is nothing like them. Their natural presentation may make them cavier to the general.

YAMAHA NS1000M
Hi-tech favourites of the Japanese and Americans. Viewed more warily in the UK but can give excellent results.

TANNOY GREF & AUTOGRAPH
Folded horn monitors which certainly sound good if you have the space. Great for Tannoy vintage see HFV November 1998.

TANNOY GRF & AUTOGRAPH
Ideal experimenters driver High sensitivity and a kind load to amplifiers. This day. Well mannered with a warm sound and a kind load to amplifiers.

THORENS TD 124
Best classic deck ever? Possibly the ultimate Tardis console, including an oscilloscope for checking the strength of signal. Exceptive even now.

TRIO L-07D
Knockout heavyweight from 1980 with stainless bearing and 1 lb platter! Not a give-away and beware! - spares scarce.

LEAK TROUGHLINE (ORIGINAL)
Interesting ornament but no longer Hi-fi. Limited coverage of 88MHz to 100MHz only.

LEAK TROUGHLINE II & III MONO
Arguably the best-sounding tuners ever. Adaptation for stereo easy via phono multiplex socket.

LEAK TROUGHLINE III STEREO
Excellent tuner with indiffrent stereo decoding circuit. Best when adapted to use modern outboard decoder.

MARANTZ ST4
Possibly the ultimate Tardis console, including an oscilloscope for checking the strength of signal. Exceptive even now.

MANTRA AUDIO
Specialist Suppliers of Audio Accessories
www.mantra-audio.co.uk

CARTRIDGE SELECTION

STYLUS REPLACEMENT STYLUS

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AURAL STIMULATION

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e-mail: info@henleydesigns.co.uk

THORENSTD150
Mid-price deck with a keen following. No real difficulty with servicing - novices may find the suspension system unnerving.

MARANTZ ST4
Possibly the ultimate Tardis console, including an oscilloscope for checking the strength of signal. Exceptive even now.
Choice hi-fi makes it easy for you to fulfill your sonic dreams. Quality hi-fi is not just about expensive brandnames. It's about aspiring to the very best sound, about choosing your ideal system from the widest selection in the country, in a unique no-pressure environment.

**Quarterly Sale**

**New this month**

**POWER AMPLIFIERS**

- **Choice SP 800** (DKT Cassette)
- **Gary 825** Monoblocks “new”
- **CAT Ultimate Reference Pre Amp Inc/Phono “new”**
- **Reference 3A Pre Vibe**

**PRE AMPLIFIERS**

- **Tube Technology Phosphor pre**
- **Krell KRC**
- **Graf 13.5 Pre**

**LOUDSPEAKERS**

- **Wilson Benesch Act 2 arm**
- **Ortofon Kontrapunkt a**
- **Estimar Prema 39**

**CD PLAYERS & DACS**

- **Musical Fidelity CRPS**
- **Meridian 558 (5-channel)**
- **Krell FPB 600**

**Power amplifiers**

- **Musical Fidelity X 1100**
- **Mordaunt Short 2000**
- **Reference 3A**

**CD players**

- **Lexicon HS 2045 Hardwire**
- **Tomlinson Hall 24 bit**
- **Yamaha NS-555**

**DACS**

- **Meridian S 250**
- **Musical Fidelity X 1000**
- **Reference 3A DAC**

**Turntables & analogue, various**

- **Wilson Benesch Act 2 arm**
- **Ortofon Kontrapunkt a**
- **Estimar Prema 39**

**Turntables & analogue**

- **Lexicon HS 2045 Hardwire**
- **Tomlinson Hall 24 bit**
- **Yamaha NS-555**

**Quirky budget items**

- **Ensemble PA1**
- **Reference 3A**
- **Talson Kettele & Bracket**

**Quirky budget items**

- **Reference 3A**
- **Talson Kettele & Bracket**
- **Soundbath Quantum**

**AMP components**

- **Lexicon HS 2045 Hardwire**
- **Tomlinson Hall 24 bit**
- **Yamaha NS-555**

**AV components**

- **Lexicon HS 2045 Hardwire**
- **Tomlinson Hall 24 bit**
- **Yamaha NS-555**

**TELEVISION & DVD PLAYERS by LOEWE**

- **Lowec KXMD DVD**
- **Lexicon LS 2450**
- **Loewe KXM 2450**

**Television & DVD players**

- **Lowec KXMD DVD**
- **Lexicon LS 2450**
- **Loewe KXM 2450**

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- **Ensemble PA1**
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- **Talson Kettele & Bracket**
DIY News 97
All the latest from the weird and wonderful world of DIY hi-fi.

A Warm Glow 98
Ray Paice puts together a low powered, single-ended kit amp of the purest type.

Book Review 103
Audio Measurements - by Norman Crowhurst.

A Clear Reflexion 105
Nick Lucas builds the Reflex interconnect kit from Audio-Links.
Falcon Acoustics Ltd
Falcon Electronics, Basically Sound
http://www.falcon-acoustics.co.uk

Full Price List and Focal details on Web Site

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COMPONENTS
- SOLID Polypropylene capacitors. 0.1mFd. to 100mFd.
- Polyester and Polycarbonate Film Capacitors. 0.1mFd. to 10mFd.
- ALACAP Reversable Electrolytic Capacitors (Non-Polar). 50v, 100v & Low Loss. 2mfd. to 600mFd.
- FALCON Custom-wound Inductors.
- AIRCORED: 0.56 ~ 2mm wire; IRON DUST. 1mm wire.
- TAPPED INDUCTORS: 0.1mH in 0.1mH steps & 0.5mH in 0.5mH steps.

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Back year sets of Speaker Builder, Audio Amateur & Glass Audio, plus the Audio Anthology Set.

Falcon is Moving
After nearly 27 years at Tabor House Mulbarton, we are moving to a new location in ACLE, a small town on the A47, halfway between Norwich and Great Yarmouth.
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ACLE, Norwich, Norfolk, NR13 3DJ
Tel: 01493 751100 Fax: 01493 751155

WE HAVE BEEN SUPPLYING TUBES TO THE AUDIO MARKET FOR OVER 40 YEARS. ONLY VALVES THAT PASS OUR STRIDENT QC TESTS ARE USED FOR THE CVC PREMIUM BRAND, AND OUR NO Nonsense GUARANTEE ENSURES YOUR COMPLETE PEACE OF MIND. WHEN AVAILABLE, WE ALSO STOCK THE JUSTIFIABLY FAMOUS BRANDS SUCH AS BRIMAR, GEC, MULLARD, RCA TELEFUNKEN ETC. SO WHY COMPROMISE? OUR SALES AND TECHNICAL STAFF ARE JUST A TELEPHONE CALL AWAY. TO PUT IT SIMPLY.......
HONG KONG PHOOEY?

Here's a site from a Hong Kong based company that offers a range of kits, accessories and parts. DIY Hi-Fi Supply offers a US$399 Cole tube preamp kit that has an mm/mc transformer built in which is 5x and 10x switchable, along with two 12AX7 tubes, an EZ80 tube rectifier and a choke filtered power supply. Also in the kit amp catalogue is a passive preamp that bears the name Django. This is a design which uses a Seiden selector switch and attenuator and has both balanced and unbalanced outputs, plus one balanced and three RCA inputs. It also features pure silver hook up wire. The Django is priced at US$649 in kit form.

HELP AT HAND

We've discovered a DIY site with lots of varied information, forums and topics for all solder iron wielding enthusiasts. Here you'll find parts suppliers, sample projects (including car audio), advice and information on basic electronics and components, and plenty of circuit and box designs. There are also over 1000 manufacturer links.

http://lalena.com/audio/?diy=yes

HORN OF PLENTY

Here's a site run by a certain Thomas Dunker in the States that deals with just about everything the horn fanatic should crave. The idea of the site is to "provide information and inspiration" to DIYers who build their own domestic horn speakers and systems. There is a range of articles and a history of the horn loudspeaker and a great selection of various wacko home made and commercial designs in the classic horn mould.

WHAT'S ALL THIS ZEN?

The American tube amp/speaker company Decware have two kit versions of their single ended Zen Triode amp. There is the SE84C basic version ($399) and the upgraded and tweaked SE84C-S Select version ($575). The amps can also come with a smart hardwood base for an extra $119.

The design uses two Svetlana SV84 tubes (any EL84s can be used too) and delivers 2.5 watts, but can be bridged to knock out 5 watts into 8ohms. There is a SU4G tube rectifier and a 6NIP tube for the signal. In the Select version there are resistors by Dale and Vishay and German WIMA signal capacitors. The site has all the building instructions with pictures and diagrams and the schematics are downloadable in PDF form.
Ray Paice puts together a low powered single-ended kit amp of the purest type.

A couple of years ago I had my first experience of a low power amplifier driving high efficiency speakers. The situation was the World Audio Design room at the Bristol Hi-Fi show. I came away with an impression that there was something fundamentally right about the approach. High efficiency speakers have light cones, which, because of their low inertia, stop and start quickly, which means a more accurate translation of the electrical signal into a movement of air. Things must get even better if you get a single driver to cover the whole frequency range, getting rid of dreadful crossovers! The high efficiency also means that you only need a handful of watts to drive them, allowing the use of affordable single-ended triode amplifiers. These amplifiers generally have few components to corrupt your precious signal, and the views about their benign harmonic distortion are well known. I was a believer in the high efficiency/low power creed, but what did I do about it? Well, the answer was absolutely nothing. My Hart/Linsley-Hood amplifier and Hi-Fi News DCI speakers continued to give good service. I did nothing, that is, until earlier this year when I heard some amazing sounds from a pair of Lowther horns driven by a 3 watts Single-Ended Triode (SET) amplifier.

One thing was certain: DIY was essential to make my dreams affordable, so the quest began for suitable designs. I settled on All-Fun horns, courtesy of the Norwegian Lowther club website. The amplifier is the subject of the rest of this article.

CHOOSING AN AMPLIFIER
To a large extent DIY Hi-Fi is a gamble as you are seldom able to hear designs. You need to seek advice you can trust, decide on your own technical criteria and be prepared to
Parallel fed schematic diagram.

experiment. I wanted a handful of watts, a SET design and a very simple signal path.

I spent quite a lot of time reading and browsing the web and finally decided upon the Paraglow from the Bottlehead Corporation, based in the USA. The Paraglow is a zero feedback design and produces 2 watts using 2A3 output valves. The driver stage is one half of a 5965 direct coupled to the output valve for a very simple signal path. There are plenty of positive views about this amplifier's capabilities on the web.

The Paraglow has some interesting design features. Firstly it doesn't slavishly follow the line that all silicon is bad; it uses diodes to rectify the power supply, but more interestingly has a transistor based high-voltage constant current source as an active load for the driver valve.

Even more fundamentally, it seeks to address some of the compromises built into the output transformers of most similar amplifiers. The name Paraglow is derived from Parallel Feed, a technique used to separate the DC plate loading requirements and AC signal handling requirements that co-exist in most output transformers. Figure 1 shows the concept of parallel feed and a fuller description is available on the Bottlehead website.

THE KIT BAG

The Paraglow kit costs about $1150, (about £750), plus carriage, (and a further slice for those nice Customs and Excise people when it arrives). The price includes NOS 5695s and Chinese Valve Art 2A3s. The transformers, from Magnequest, are wound to order and delivery took around 6 weeks. The kit included everything except hook up wire and mains cables. Bottlehead recommend their own transformer wire for the ground bus and Jena cable for hook-up, which I duly ordered. It arrived well packed and everything was present and correct. All of the components were of good quality. Figure 2 shows the contents of the kit as supplied (except that the chassis plates have already been painted). The kit includes an excellent instruction manual with lots of safety guidance – there are over 400 volts DC present in the design.

CUSTOM AND EXERCISE

One of the great benefits of DIY is you can change things around to suit your individual needs. As supplied the Paraglow builds up as monoblocks, with several of the, somewhat utilitarian looking, transformers exposed to the world. I decided to hide the transformers away inside the chassis. I also wanted to use a passive attenuator and to keep signal paths as short as possible. Also, I wanted to do away with the tag strips supplied with the kit and do as much point-to-point hook-up as possible. Finally, some Black Gates were substituted for the power supply electrolytic capacitors provided.

I decided to build the kit as a 'stereo integrated' in the same vein as several of the WAD kits. This kept all the interconnections around the WAD attenuator very short and dispensed with a few phono plug
Interfaces in the process. Retaining the orientation of the various transformers relative to one another I drew up a new chassis plate and laid out the components to facilitate the point-to-point connection. I then had a new chassis plate made in brushed stainless steel (it cost me around £55).

Also, on further reflection following some excellent results with silver interconnect cables, I decided to use solid silver wire for all signal routes. This, along with Teflon sleeving was sourced from Audiocom. I re-used the transformer wire supplied by Bottlehead for the valve heater wiring, again sleeved with Teflon (for safety reasons).

Regarding the silver interconnects, you may have seen a Trade Ad from 'bob@skydivers.co.uk' for 'Amazing Interconnects' and for around £100 per metre pair I rate them as the cable bargain of the decade.

SCHOOL ASSEMBLY

Although I decided not to build the Paraglow as standard I still followed the instruction manual as far as possible. First, all the transformers, sockets etc. are assembled onto the chassis, then the various wires and components. WBT solder was employed. Everything went together easily and the estimated assembly time was about 10hrs all in (having assembled kits before). I follow the 'check twice, solder once' rule and try to keep everything as neat as possible.

Next came more checking - the instructions list points at which to measure resistance values. When you get this far with assembling a kit it can be tempting to cut corners – don't! Still following the manual, the time came to plug in and switch on followed by more checks - again the manual lists various points at which to check voltages. Nothing went pop so I started carefully measuring the voltages. However, there was clearly something wrong; the transformers on one channel got very hot very quickly. Applying some logic and checking out resistances again I tracked the problem down to the capacitor between the output...
Blore Edwards stepped attenuator.

transformer and ground, which had gone short circuit — I suspect this type of event must be very rare. All was well once the capacitor was changed.

The only other problem was some hum that was tracked down to dirty pins on one of the driver valves. Figures 3, 4, 5 and 6 illustrate the internal assembly.

The chassis was fixed to a wooden plinth (actually a pine storage box from Homebase!), my DCI speakers were connected and my Trichord modified Musical Fidelity CD player plugged in.

RESULTS
The sonic rewards are stunning! The sound is so incisive, yet without any edge to it. The music just flows and all the different strands are untangled so that everything seems to be in its own space. Bass is very articulate. And the detail — I hear so much that I haven't been aware of before. Everything just seems fundamentally right. The results were a quantum advance on my old amplifier, which I had always considered to be very good. I believe I would need to spend a number of thousands of pounds to get this performance from a commercial product. By the way, the 2.5watts is actually quite enough to achieve a good listening volume from the 87dB efficient DCI speakers!

FURTHER ON
As far as more tweaks go, the first thing to do is complete a decent wooden plinth for the amplifier. This will be hewn from maple with box joints similar to those in the current plinth. I have already followed up on two upgrades that I found via the internet, for which feedback, from others who have already been down the road, is very positive.

I have on order a Paraglow Mk2 upgrade kit, which makes significant changes to the driver stage, including an upgrade to the constant current source.

Also, Magnetique have some upgraded output transformers available, using cobalt laminations, and these should arrive soon. Hopefully I will be able to report back in due course — editor permitting!

Further down the line I will look at experimenting with alternative components, including the output tubes. I hear good reports of the TJ meshplate 300Bs, which are available with 2.5V heaters as replacements for 2A3s.

END PIECE
The Paraglow is an example of what is best about DIY audio, an innovative design, excellent quality components, an amazing sound quality per pound ratio, easily upgradeable/customisable to suit your own requirements and loads of freely available help and advice. It should not be beyond most people's abilities to build Paraglows, with the reward of an amplifier possessing exquisite musical qualities.

Paraglow SET amplifier $1150
Bottlehead Corporation
www.bottleheads.com

ACKNOWLEDGEMENTS
Doc and Eileen at the Bottlehead Corporation for an excellent product and unending patience. Contact Pat at Powerdex, Bridgewater, Somerset for a fantastic job on the stainless steel chassis and powder coating various parts. (They're happy to take on small jobs and charge very reasonable rates.) Anyone else that has offered advice and encouragement — thanks!

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Audio Measurements was first published in 1958, written by the renowned and prolific author Norman H. Crowhurst, this reprint edition sees the book republished in its original form. The book is a compendium of measurement and test techniques for audio equipment of the time with the focus primarily on valve amplifiers and pre-amplifiers. The 224-page book covers topics and methods used in audio measurement of the period which, in many cases, will still be applicable today but I suspect that some, if not all, of the test equipment pictured and described are going to be a little hard to find!

Chapter One starts with the basics and covers measurement techniques, limitations of test equipment, equipment accuracy and absolute Vs comparative measurement. Chapter Two takes the reader through a tour of the test equipment used at the time, Oscillators, Vacuum-tube Voltmeters, Square Wave Generators, Oscilloscopes, Distortion Meters and Wave Analyzers, with discussion and description on their use. There are some real museum pieces here!

Chapter Three moves on to basic measurements and instrument calibration, laying down base-line criteria for Phase, Resistance, Impedance, Voltage and Current measurement. There is a brief discussion about LP groove velocity, LP material compliance and tape magnetization.

Chapter Four - Basic Amplifiers is where the real action starts and is arguably the most interesting. Detailed descriptions are given for measuring the Frequency Response, Gain, Power Output/Response, Harmonic Distortion, Intermodulation Distortion, Input and Output Impedance etc. Square wave testing is covered in detail with clear illustrations as is steady tone and impulse tone-tests, each aspect is discussed in detail with suggestions on how the tests can be performed and what sort of results can be expected.

Chapter Five covers Output Transformer measurement and looks at their importance in an amplifier, their high and low frequency performance, leakage inductance and efficiency. Chapter Six moves on to preamplifiers and focuses on the different test requirements between pre-amplifiers and power amplifiers. Gain and Frequency responses are looked at again along with Distortion, Noise and Cross Talk. Tone and loudness controls are also covered.

Chapter Seven changes tack and looks at pickups and arms and how to measure sensitivity, impedance, compliance and dynamic mass.

Chapter Eight continues this theme looking at the Turntable covering speed stability, rumble and wow. Next, in chapter Nine, the book takes a look at open real-to-real tape. Among the topics covered are High Frequency Bias, Azimuth adjustments, Frequency response and Dynamic range. Chapter Ten wraps things up with a detailed look at microphone testing, which is an intricate and largely irrelevant (to hi-fi at least) subject.

Naturally, being written in 1958, Music cassette, Compact Disc, Mini disc etc. are not covered. This does not detract in anyway from the enjoyment of the book. The book is not just about testing and measurement, the author gives detailed background information on each subject covering how things work and operate whilst also discussing what criteria is required from the various components under test. The book is clearly written with no confusing 'jargon' and the text is very easy to follow. There is very little math - the copy is littered with easy to follow illustrations, at the end of each chapter there is a useful 'recommended reading' list which seems to be a compilation of Norman's other literary works!

Although the book is not a step by step guide on how to measure audio equipment but more of a general overview of what is required, it contains just enough information to get you started. All in all a very good read with lots of practical information on audio equipment testing for the dedicated DIY'er. A must for all Valve heads!

This book is available from World Library. Tel/Fax: + 44 (0)1908 218836 or order on-line at www.worldaudiodesign.co.uk

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### AMERICAN TYPES

| 7849Y        | RCA            |
| 5U4GB        | SYLVANIA       |
| 5V3GW        | SYLVANIA       |
| 6BXTST       | GE             |
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| 6L6GOC       | GE/SYL         |
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Are you astounded at the prices of audio cabling? Well, there is an affordable alternative, as Nick Lucas demonstrates when constructing the Reflex interconnect kit from Audio-Links.

There are numerous manufactured interconnect cables on the market, with some companies selling cables at totally ridiculous second-mortgage prices. Amongst all this it’s good to know that there is an alternative, as long as you can wield a soldering iron.

Audio-Links are based in Lincolnshire and have been trading for eight years. They are a hi-fi upgrade company that also sell a large range of audiograding components. As part of their cable kits range, that also includes digital interconnects, loudspeaker cable, mains cable and scart leads, they sell the Reflex interconnect kit. This, I felt, needed a closer look, so I gave them a call and they promptly sent one my way for my appraisal.

IN THE KIT
The kit provides 2m of Reflex cable, which is 5.5mm diameter and low capacitance - great for passive preamps and screened balanced interconnect. The cable itself is composed of two sets of silver plated OFC (oxygen free copper) stranded conductors, insulated in PTFE (polytetrafluoroethylene). The screen section is made up of silver-plated OFC closely woven. The brown outer cover is made of PTFE. There are two pairs of colour coded marbled phono plugs, made of gold plated copper alloy with PTFE insulation. Also provided are 1m of silver loaded solder and two earth markers.

The parts are of very good quality, the cable being well constructed and very tightly wound. The phono plugs are heavy duty and make good contact when inserted into a phono socket. The one page instruction sheet was easy to follow - let’s face it, out of all the kits available, making interconnects is relatively straightforward, though sometimes a bit fiddly. These took about 45 minutes to construct and the one tool I found useful was a Stanley knife blade, used with little force, which was excellent at removing PTFE sleeving - PTFE does not behave itself when you use wire strippers!

I found the silver loaded solder superb; my 25watt Antex iron melted it with ease and made an excellent joint. The problem with some silver solder is that the high silver content means you need a high temperature iron to create a good join - no such problem here. During assembly you mark off the end that has the screen braids attached to the phono plugs with the earth markers. These have the earth mark on a small section of white heat-shrink tubing. It is advisable to keep the “earth” end at the amplifier end of the system.

The Reflex interconnects are described as being pseudo-balanced which does require some explanation. In normal interconnects (un-balanced) you have the signal wire that carries the signal section and then you have the “common” screen portion that effectively connects the shield, ground or
instrument chassis of the two components together. With balanced interconnect you have a third element that is a dedicated, ground conductor, that accompanies the signal. This provides a reduction in noise and distortion. You have to use equipment that caters for balanced input and balanced output though. The Reflex interconnect is termed pseudo-balanced because it uses three conductors, but the screen braid is not connected at one end, so it is half way to being balanced.

Incidentally, Audio-Links have sonically analysed all the different ways to wire-up these interconnects and came to the conclusion that for unbalanced systems this pseudo-balanced configuration came out the best. For those that do have balanced systems you would obviously wire up the screen at both ends. The recommended burn in time is 20hrs.

SOUND QUALITY
by Simon Pope

I was very impressed by the Reflex interconnect. It has a very fast and immediate sound with an especially detailed and open midband and treble which puts it up amongst some cable I've heard that cost much, much more.

Essentially it's in the upper bracket (e.g. Black Rhodium and Nordost cables) mould, in as much as it concentrates on gleaning as much detail as possible from any recording. And that includes less obvious intricacies as well as the more essential information. Mahler's Das Lied von der Erde on a superbly clean Reference Recordings HDCD played by the Minnesota Orchestra under Eije Oue had superb transparency and the type of instrumental lucidity that brought me straight into the middle of the recording session. The air and space inherent in this recording was emphasised by the Reflex and created a big and spacious soundstage for the large orchestra to sparkle in.

A quick flick of the remote saw a change over to Paul Weller's Stanley Road which sounded fast and tight, with a good, hard pounding kick drum and super clean vocals and guitar lines in the track Out Of The Sinking. Bass was very firm and speedy and the treble, whilst detailed, wasn't ever sibilant or splashy. Compare these cables with any 'ready made' rival at the same price and it will be a case of night and day, believe me. Very much a bargain.

The Reflex interconnect kit is priced at £56.40 + postage in the UK this amounts to £3.00 and is available from Audio-Links. A catalogue of all parts sold by Audio-Links is available upon request by post or by an e-mail attachment.

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<td>AUDIO RESEARCH BL1</td>
<td>£699 £496</td>
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<tr>
<td>GRAAF 13.5 B11 Pre</td>
<td>£3950 £2746</td>
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<td>GOLDMUND Mimesis 6 Amp</td>
<td>£2900 £1726</td>
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<tr>
<td>COPLAND CTA 301Pre</td>
<td>£1299 £899</td>
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<tr>
<td>CONRAD JOHNSON Premier 8 Monoblocks</td>
<td>£1600 £9750</td>
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<td>ACOUSTIS 13.5 8 Pre</td>
<td>£7700 £4950</td>
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<td>CONRAD JOHNSON PV12V Pre</td>
<td>£2000 £1128</td>
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<tr>
<td>CONRAD JOHNSON Premier 17 Pre</td>
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<td>CONRAD JOHNSON Premier 8 Monoblocks</td>
<td>£1600 £9750</td>
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<tr>
<td>COPLAND CT1 301Pre</td>
<td>£1299 £899</td>
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<tr>
<td>CR DEVELOPMENTS (Amorns) (Pre)</td>
<td>£900 £528</td>
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<tr>
<td>GOLDMUND Nexum 6 Amp Ex-dm</td>
<td>£900 £528</td>
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<tr>
<td>GOLDMUND Nexum 4 Tuner Ex-dm</td>
<td>£610 £474</td>
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<tr>
<td>GRAAF 13.5 8 Pre Amp</td>
<td>£1299 £899</td>
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<tr>
<td>JADIS DA3 Integrated</td>
<td>£3500 £2246</td>
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<tr>
<td>MALCOLMSON Odyssey 40v Last</td>
<td>£1100 £599</td>
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<tr>
<td>NAIRI PFL Pre</td>
<td>£3950 £2498</td>
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<td>NAIRI PFL Pre</td>
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<tr>
<td>NAIRI PFL Pre</td>
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<tr>
<td>NAIRI PFL Pre</td>
<td>£3950 £2498</td>
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<tr>
<td>PAUL 22 4 Monoblocks</td>
<td>£450 £528</td>
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<tr>
<td>UNISON RESEARCH 128 Pre</td>
<td>£7700 £528</td>
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<tr>
<td>UNISON RESEARCH 35 Pre</td>
<td>£7700 £528</td>
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</tbody>
</table>

LOUDSPEAKERS

ACOUSTIC Model 2 Electrostatics | £2500 £674 |
ARIEL ACOUTIC Model 8 (stands) Ex-dm | £5679 £3596 |
AUDIONOTE Anthony (stand) | £9200 £4748

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35 Cowgate Peterborough PE1 1LZ
World Radio History

PHONE: 0870 608 8211
OPEN: Tues - Sat: 10am - 5.30pm
NEXT DAY DELIVERY WITH CREDIT CARD PURCHASES

<table>
<thead>
<tr>
<th>TUNERS/TAPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LUXMAN 350 (Rear)</td>
</tr>
<tr>
<td>MERIDIAN 204</td>
</tr>
<tr>
<td>SONY 577 0 ES</td>
</tr>
<tr>
<td>NAKAMICHI CR700 Cassette</td>
</tr>
<tr>
<td>REVOX D30 (Real to Real)</td>
</tr>
<tr>
<td>REVOX E36 (Real to reel)</td>
</tr>
<tr>
<td>REVOX E710 MK2</td>
</tr>
</tbody>
</table>

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- Dcs
- DNM / Reson
- Einstein
- Electrocompaniet
- Final
- Graaf
- Gryphon
- Lavardin
- Mark Levinson
- Martin Logan
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Max Midland Audio X-change

S/hand and ex-demo clearance items - APRIL 2003

CD players DACs & Transports

<table>
<thead>
<tr>
<th>Was</th>
<th>Now</th>
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<tbody>
<tr>
<td>Audio Synthesis Decade HCD DAC S/H</td>
<td>2800</td>
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<tr>
<td>Theta Data Basic Transport S/H</td>
<td>2398</td>
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Turntables Tonearms & Cartridges

<table>
<thead>
<tr>
<th>Was</th>
<th>Now</th>
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<tbody>
<tr>
<td>Basis 2000/3B300 Turntable x-Demo</td>
<td>1999</td>
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<tr>
<td>Basis 2001 Turntable x-Demo</td>
<td>2999</td>
</tr>
<tr>
<td>Basis 2004 Turntable x-Demo</td>
<td>4500</td>
</tr>
<tr>
<td>Heed Audio Quazar 2 Box Phono Stage New and Boxed</td>
<td>599</td>
</tr>
<tr>
<td>Lehmann Audio Black Cube SE New &amp; Boxed</td>
<td>650</td>
</tr>
<tr>
<td>McCormack Phono Stage New and Boxed</td>
<td>650</td>
</tr>
<tr>
<td>Origin Live 250 Silver Tonearm S/H</td>
<td>600</td>
</tr>
<tr>
<td>Roksan Xerxes Rosewood Linn Cut S/H</td>
<td>N/A</td>
</tr>
<tr>
<td>Systemdeck / Rega RB300 S/H</td>
<td>N/A</td>
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</tbody>
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Preampifiers

<table>
<thead>
<tr>
<th>Was</th>
<th>Now</th>
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<tbody>
<tr>
<td>Advantage S2 Balanced Silver S/H</td>
<td>2750</td>
</tr>
<tr>
<td>Bel Canto Pre1 Remote controlled Balanced x-demo</td>
<td>2500</td>
</tr>
<tr>
<td>Bryston 25P Remote Controlled Balanced S/H</td>
<td>1700</td>
</tr>
<tr>
<td>CAT SL1 MkII Reference Phono Pre amplifier S/H</td>
<td>6500</td>
</tr>
<tr>
<td>EAR 802 Valve Preamp S/H</td>
<td>1599</td>
</tr>
<tr>
<td>Einstein &quot;The Tube&quot; Preampifier x-Demo</td>
<td>6000</td>
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<tr>
<td>Krell KAV/S Processor/Preampifier DTS/AC3 Pro Logic S/H</td>
<td>14989</td>
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<tr>
<td>Roksan L2 preampifier S/H</td>
<td>1295</td>
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Amplifiers

<table>
<thead>
<tr>
<th>Was</th>
<th>Now</th>
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<tbody>
<tr>
<td>Audio Analogue Maestro Integrated x-demo</td>
<td>2700</td>
</tr>
<tr>
<td>Bel Canto Evo 200.2 Class T Power Amplifier x-demo</td>
<td>2500</td>
</tr>
<tr>
<td>Bryston 4BST Stereo Power Amplifier S/H</td>
<td>2400</td>
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<tr>
<td>Bryston B60R Amplifier S/H</td>
<td>1550</td>
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<tr>
<td>DNM PA3S Stereo Power Amplifier S/H</td>
<td>2900</td>
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<tr>
<td>Electrocompaniet ECK-3 Integrated x-demo</td>
<td>1249</td>
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<tr>
<td>Graaf GM20 OTL Stereo Valve Amplifier S/H</td>
<td>3295</td>
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<tr>
<td>Lavardin IT x-demo</td>
<td>3200</td>
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<tr>
<td>Parasound 1205 multichannel amplifier x-demo</td>
<td>1695</td>
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<tr>
<td>Pass X150 Stereo Poweramplifier S/H</td>
<td>4750</td>
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<tr>
<td>Roksan Rok S1.5 Power Amplifier S/H</td>
<td>1499</td>
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Loudspeakers

<table>
<thead>
<tr>
<th>Was</th>
<th>Now</th>
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<tr>
<td>BKS 107 MKII Supreme Ribbon Hybrids x-demo</td>
<td>2199</td>
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<tr>
<td>Celestion A1 Cherry S/H</td>
<td>899</td>
</tr>
<tr>
<td>Indigo Model Two Centre Channel Cherry S/H</td>
<td>199</td>
</tr>
<tr>
<td>JM Lab Micro Utopia Dark Cherry New and Boxed</td>
<td>4500</td>
</tr>
<tr>
<td>JM Lab SV800 Subwoofer S/H</td>
<td>1079</td>
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<tr>
<td>Opera Operetta Mahogany x-demo</td>
<td>795</td>
</tr>
<tr>
<td>Wilson Benesch Orators Cherry S/H</td>
<td>2800</td>
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</table>

Cables & Accessories

<table>
<thead>
<tr>
<th>Was</th>
<th>Now</th>
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<tbody>
<tr>
<td>Air Pod size 1 x3 S/H</td>
<td>210</td>
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<tr>
<td>Cogax Hall EM-D 0.6m S/H</td>
<td>199</td>
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<tr>
<td>Finite Elemente Pagode E55/04 4 Tier Maple Stand x-demo</td>
<td>849</td>
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<tr>
<td>Opera Lux 3 Tier Table Clear/Stainless x-Demo</td>
<td>950</td>
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<tr>
<td>Roksan HA01 1M Interconnect S/H</td>
<td>99</td>
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<tr>
<td>Roksan HA01D 0.5m Digital Interconnect S/H</td>
<td>49</td>
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<tr>
<td>Target HR60 Silver Stands S/H</td>
<td>199</td>
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<tr>
<td>Target R2 Stands S/H</td>
<td>329</td>
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<tr>
<td>Transparent Music Link Ultra Balanced 7.26m S/H</td>
<td>2349</td>
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<tr>
<td>Transparent PL20XL Power cord S/H</td>
<td>1260</td>
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<tr>
<td>Transparent The Wave 2X7m S/H</td>
<td>599</td>
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Tuners & Tape Decks, Power Supplies

<table>
<thead>
<tr>
<th>Was</th>
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<tr>
<td>AKG C1000 Condenser Mic S/H</td>
<td>241</td>
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<tr>
<td>Magnum Dynalab FT-R Remote Switcher for FT101A/Elude (New &amp; Boxed)</td>
<td>450</td>
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<tr>
<td>Rega RadioR Silver x-demo</td>
<td>498</td>
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<tr>
<td>Revox B77 MKII Reel to Reel _ Track S/H</td>
<td>2800</td>
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<tr>
<td>Sony TCD10 Pro DAT Portable/Recorder S/H</td>
<td>2500</td>
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Bargains under £100

<table>
<thead>
<tr>
<th>Was</th>
<th>Now</th>
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<tbody>
<tr>
<td>Sony TCK-461s 2 head cassette decks new &amp; boxed</td>
<td>199</td>
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**MUSICAL IMAGES**

**PRODUCT**

<table>
<thead>
<tr>
<th>Product</th>
<th>List</th>
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<tbody>
<tr>
<td>ARCAM AVR100 Black AV Receiver</td>
<td>EX/Demo</td>
<td>£800</td>
</tr>
<tr>
<td>ARCAM CD72 Silver CD Player</td>
<td>EX/Demo</td>
<td>£450</td>
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<tr>
<td>ARCAM DIVA DV82 DVD Player</td>
<td>EX/Demo</td>
<td>£1,000</td>
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<tr>
<td>ARCAM T61 Silver Tuner</td>
<td>NEW</td>
<td>£250</td>
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<tr>
<td>DENON AVR1602 Black AV Receiver</td>
<td>EX/Demo</td>
<td>£350</td>
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<tr>
<td>DENON AVR1802 Black AV Receiver</td>
<td>EX/Demo</td>
<td>£450</td>
</tr>
<tr>
<td>HARMON KARDON HK3370 Receiver</td>
<td>EX/Demo</td>
<td>£250</td>
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<tr>
<td>KEF REFERENCE 4-2 Cherry Speakers</td>
<td>EX/Demo</td>
<td>£3,650</td>
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<tr>
<td>LINN AKTIV/110 Active Modules</td>
<td>EX/Demo</td>
<td>£125</td>
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<tr>
<td>LINN LP12 Tumbler</td>
<td>EX/Demo</td>
<td>£1,075</td>
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<tr>
<td>MARANTZ ECLIPSE 70 DVD Combi System</td>
<td>EX/Demo</td>
<td>£1,500</td>
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<tr>
<td>MERIDIAN 566 Digital processor</td>
<td>EX/Demo</td>
<td>£3,985</td>
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<tr>
<td>MERIDIAN DSP33 DSP Active Speaker</td>
<td>EX/Demo</td>
<td>£2,595</td>
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<tr>
<td>MERIDIAN DSP5000 Cherry Speakers</td>
<td>EX/Demo</td>
<td>£3,985</td>
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<tr>
<td>MERIDIAN DSP5000C Black Centre Speaker</td>
<td>EX/Demo</td>
<td>£1,995</td>
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<tr>
<td>MERIDIAN DSP5800/HC Centre Speaker</td>
<td>EX/Demo</td>
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<tr>
<td>MISSION 722 Speakers</td>
<td>EX/Demo</td>
<td>£650</td>
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<tr>
<td>MISSION 75C Centre Speaker</td>
<td>EX/Demo</td>
<td>£300</td>
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<tr>
<td>MISSION 75DS Speakers</td>
<td>EX/Demo</td>
<td>£300</td>
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<tr>
<td>MUSICAL FIDELITY A3CR Pre Amp</td>
<td>EX/Demo</td>
<td>£1,000</td>
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<tr>
<td>MUSICAL FIDELITY CDPRE CD Player/PRE Amp</td>
<td>EX/Demo</td>
<td>£2,000</td>
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<tr>
<td>MUSICAL FIDELITY HTP AV Pre Amp</td>
<td>EX/Demo</td>
<td>£2,000</td>
</tr>
<tr>
<td>MUSICAL FIDELITY NUVISTA 30DC CD Player</td>
<td>NEW</td>
<td>£3,000</td>
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<tr>
<td>MUSICAL FIDELITY XA100R Amp</td>
<td>EX/Demo</td>
<td>£1,000</td>
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<tr>
<td>MUSICAL FIDELITY XCAN Headphone Amp</td>
<td>NEW</td>
<td>£150</td>
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<tr>
<td>MUSICAL FIDELITY XLP5 Phase Stage</td>
<td>NEW</td>
<td>£150</td>
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<tr>
<td>NAIF BRUNY Super Logical Interconnect</td>
<td>EX/Demo</td>
<td>£245</td>
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<tr>
<td>NAIF INTRO Black Speakers</td>
<td>EX/Demo</td>
<td>£790</td>
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<tr>
<td>NAIF NASBL Speakers</td>
<td>EX/Demo</td>
<td>£2,960</td>
</tr>
<tr>
<td>PANASONIC NVFJ605S Silver VCR</td>
<td>NEW</td>
<td>£150</td>
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<tr>
<td>PIONEER DV-530 DVD Player</td>
<td>EX/Demo</td>
<td>£230</td>
</tr>
<tr>
<td>PIONEER DVR7000 DVD Recorder/Player</td>
<td>EX/Demo</td>
<td>£1,200</td>
</tr>
<tr>
<td>SELECO HT200SB/DMF Projector</td>
<td>EX/Demo</td>
<td>£6,000</td>
</tr>
<tr>
<td>SELECO HT300GD Projector</td>
<td>EX/Demo</td>
<td>£9,000</td>
</tr>
<tr>
<td>SONY DVPNS 900 DVD Player</td>
<td>NEW</td>
<td>£450</td>
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<tr>
<td>SONY ST 777ES DAB Tuner</td>
<td>EX/Demo</td>
<td>£700</td>
</tr>
<tr>
<td>SONY STRBD1070 Black AV Receiver</td>
<td>EX/Demo</td>
<td>£950</td>
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<tr>
<td>SONY STS3/ES ES Tuner</td>
<td>EX/Demo</td>
<td>£300</td>
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<tr>
<td>SONY VPLHS1 Projector</td>
<td>EX/Demo</td>
<td>£1,800</td>
</tr>
<tr>
<td>YAMAHA DPX-1 Projector</td>
<td>EX/Demo</td>
<td>£6,500</td>
</tr>
<tr>
<td>YAMAHA RXV620RDs AV Receiver</td>
<td>EX/Demo</td>
<td>£450</td>
</tr>
</tbody>
</table>

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CLEAR AUDIO
ORTOFON
ROKSAN
GRADO
FIGURATION
SUMIKO
Alignment Gauge £15 Clearaudio Carbon Fibre Record
Hill News Cartridge Alignment Gauge £5 Audio Technica Stylus

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GOLDRING
SHURE
DENON
Hifi News Test Record & Cleaning Fluid

TRANS-
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Paganini CD Player 795 699
Maestro Int. Amplifier 2600 2249
Audio Analogue
Maestro CD Player 1600 0000
869 Integrated 2300 1849

EAR YOSHINO
S8 3100 2749
S6 1675 1419
SRI 1250 1069

Unison Research
SE/PP 3008 Monobloc pair 5695 4975
Manley Labs
In  Power Monoblock 3300

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HiFi News Test Record & Cleaning Fluid £5
Alignment Gauge £15 Clearaudio Carbon Fibre Record
Shure SF/2 Tracking Force Gauge £25 Cleaning Brush £14

Plinius
8200/2 Integrated Amp 2250 1949
SA102 3750 3495
Bluernote by Villa
A5 Speakers Ex-Dem 675
A6 Speakers Ex-Dem 990
BellaVista T/Table 979
U3 Tonearm 375

Bluernote CD Players
Shibbert 2499
Coniz 4199

Craft
Croft Puritan CD 1999
New Twinstar 45wpc 1699
New Epoch Pre 1499
Dikshini 3299

Opera Speakers
Super Pavonetti II 999
SP2 1199 999
SP3 1720 1575

Moncrieff
Asp CD Player 699

Miscellaneous
Diapason Adantante III 1975 1749
Loth X Scann Polaroid Speakers 5990 5499
Graf GM 100 OTL P Amp 4600 4140

Triangle Speakers
Amat 202 120w 895
Celstion 202 120w 1175
Zays 222 150w 1295
Ventis 222 150w 2275

Horning
Zeus 1795

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 Exposure 2010 £399 £499
NAD CS41 £330 £350
Monitor Audio Silver 4 in wall speakers £399 £249
Monitor Audio Silver 5 surround £450 £300
Monitor Audio Gold Reference 20 black £1500 £1150

AMPLIFIERS
Bryant BP204B £1375 £800
Royal BA Maple £799 £599
Gekko 550D £850 £699
Royal Sender SE £695 £549

Cavendish 610/3300 pre/poweramp £1295 £945
Sequence 300 beech in cherry 450 £200

Hifi News Test Record & Cleaning Fluid £5
Alignment Gauge £15 Clearaudio Carbon Fibre Record
Shure SF/2 Tracking Force Gauge £25 Cleaning Brush £14

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112  HI-FI WORLD & COMPUTER AUDIO APRIL 2003  www.hi-fiworld.co.uk
AUDUSA - EOM Silverlink Mono Crystal balanced speaker cable - conductor of 3mm diameter (approx 8 gauge), stranded silver on OFHC, plus three strands of Mono Crystal Copper for improved bass performance. Mylar infill and with designed in protection against RF and EMI. Cable OD 14.72 mm Prised at £12.95 per metre

AUDUSA EUPEN CSA 2.5 MAINS CABLE - HI FI CHOICE SEPT 2001 BEST BUY

GNLM 05/04 and GNLM 05/2.5 (CSA 2.5) Cable with FERRITE TECHNOLOGY - A polymer material mixed with a considerable quantity of homogeneously fine high quality ferrite powder is extruded around the copper conductors. As a ferromagnetic material, it will go through hysteresis loops whenever it is under influence of an alternating magnetic field. Consecutively magnetizing and demagnetizing the material will cause considerable losses of high frequency energy. This energy is absorbed in the ferrite grains and converted into heat. This effect is more or less proportional to the field frequency; high frequencies will be strongly attenuated, because their energy will be absorbed by the ferrite powder. The GNLM cables which in addition to the above described ferrite technology is further protected with a foil shield and a drain wire and specifically manufactured for High End audio use. Said by some to be the most neutral sounding mains cable on the market.

Fitted with IEC (Martin Kayser) and MK Tough. Cable can be supplied fitted to our all steel 4, 6 and 8 way distribution blocks. We can rewire the distribution blocks with Eupen cable as an extra cost option. Refer to our web site for details.

AUDUSA - Eupen and LAT AC-2 mains cable available with 16 amp IEC (for certain models of amps by Krell, MF, Levinson etc), Marinco IEC 320 IEC, Figure of eight, Bulgin, USA Hubble, European Schuko, Australian, Swiss, Danish, and Neutrik plugs.

LAT AC-2 HI-FI CHOICE - SEPT 2001 - RECOMMENDED MAINS CABLE

We have developed a cabling (weaving) pattern along with an unusual shielding/filtering system that gets rid of the garbage that contaminates your components. The difference you hear with our cord is astounding. Our power cord takes advantage of silver in its design through use of our proprietary Silverfuse conductors. The conductors are 10 gauge and with PTFE; the best insulation available. Fitted as standard with IEC / MK Toughplug . 60cm £62, 90cm £75, 1.2m £88, 1.5m £101, 1.8m £112 etc Other lengths available and off the reel.

AC-2 Power cable compare with products costing ten times as much, then decide

SILVERFUSE is a near alloy of silver and copper. IT IS NOT SILVER PLATED OR SILVER CLAD. Plating (or clad, which is the same thing as plating) causes a dioding effect when signal is passed through resulting in brightness and distortion. The Silverfuse process starts with seven nines OFHC copper wire with a diameter that is slightly larger than the required size. It is then pulled through a trough of molten silver. The wire with a silver deposit, is then forced through a compacting die where it is subject to tremendous pressure. The silver and the high purity copper are fused together into a near alloy. The compacting fusion also reduces the wire diameter to the desired size. No dioding subsequently occurs with this process. The result provides for the benefits of silver, which are excellent definition and clarity, with the high purity copper benefits of warmth and mellowness.

LAT INTERNATIONAL - Analogue, Digital and Video interconnects and Speaker cable - better than most others at double the price. Refer to www.audusa.com for further details or ask for reviews.

SUNFIRE CORPORATION - Snohomish USA

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<thead>
<tr>
<th>Equipment Description</th>
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<tr>
<td>ARCAM ALPHA 4 4 AMP BOXED AND IMMACULATE 2 YEARS OLD</td>
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<td>CASTLE 200 DYNAMIC INKJET KARTRIDGE</td>
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<td>CELESTION JS SPEAKERS BLACK - EX DEM</td>
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<td>CLEAR TONE 500 CRRYPTON REFERENCE 450/1200</td>
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<td>DENON AVP-700R GOLD BOXED AND IMMACULATE (E 900 NEW)</td>
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<td>EUROMA 9 INCH TWEETER</td>
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<td>HEARSTAT JU6 6 FOLLOW UP BOXED</td>
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<td>PHILIPS 2000/40 42'' PLASMA SCREEN - SPECIAL</td>
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<td>PIONEER SR-420 VALVE RECEIVER</td>
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<td>PINK TRIANGULAR ORNAMENT DIAL</td>
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<td>QED PASSIVE CD PRE AMP ALPS POT.</td>
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<td>QUAD 611 POWER AMPS WITH PRE. VGC</td>
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<td>QUAD ESL 57 BRONZE - WORKING FINE - PAIR</td>
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<td>RAPPAPORT PREAMP WITH RMS ANDREWS PSU</td>
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<td>ROGERS MASTER POWER AMPLIFIER - RARE EXCELLENT</td>
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<td>ROGERS CD 120 T465 76/81 SEPARATE PRE-AMP</td>
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<td>SHALING VALVE CD PLAYER - SUPERB</td>
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<td>SOUNDBYTE CD101 CD PLAYER</td>
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<td>THORENS TD 124 MKI IN GORGIOUS BASTIN PLINTH</td>
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<td>THORENS TD 165 MKI - UNIPJAG ARM PLINTH</td>
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<td>WHARFEDALE BERNHARD FLOOR STANDERS CHERRY BLK</td>
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<td>YAMAHA CT710 TUNER</td>
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<thead>
<tr>
<th>Model</th>
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<td>Audio Note CDT Zero DAC Valve combo CD player</td>
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### Transport/DACs

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### Speakers

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<td>Tannoy DC 1000 Speakers</td>
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<td>Castle Warwick Speakers</td>
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<td>Castle Conway Speakers</td>
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### Transducers

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### Other Items

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### WANTED

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### QUAD ESL 57 & ESL65 PANEL SERVICING ETC

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### QUAD PRE-POWER AMPLIFIERS

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<td>Quad Pre &amp; Power Amplifiers II Forty (Valve/SH)</td>
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### AV PROCESSORS

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- Marantz 5550 Monoblock £1,085
- Marantz 5115 Stereo Power Amp £1,140
- Marantz 541 Preamp (3100 new) £995
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- NAD Silverpower Power Amp £995
- Phillips V700 Power Amp £250
- Pioneer AN-100 Power Amp £150
- Quad 205 Power Amp £230
- Quad 203 Power Amp £995
- Quad 77 Pre and Power Amp £3,000
- Quad 205 Pre-int £2,300
- Rega EX5 Power Amp £100
- Rega & Sonor EU 700 £175
- Sony TA-F899 Integrated Amp with remote £195
- Sound Techniques Integrated Amp £1,175
- Technology Geneva Monitor 100 £1,350
- Telefunken
- Type 3060...Polished Steel £560
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- Planar 2 with 251 arm £995
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Speakers
- Deutsche Audiophonie...Dock £799
- Romantic C030 with Mission 774 tonearm £789
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- Relco 1000 200W Peer £695
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Ear 669 single ended triode integrated amplifier improved version of the famous 1969 with revised caps and transformerless input stage plus the addition of an extra signal switch which has allowed an increase to 1watts of single ended power, plus the 869 can be used as a power amp. Don't be fooled by its modest power output this affordable amp is a high quality very linear and highly recommended £2,798.

Compact Ear Phono Stage
This is the ultimate portable Phono Stage as used in the world wide acclaimed Ear 322 Compact Classic - Low Pass. This has to be the ultimate Vinyl Replay processor. Price £1,695

Full value trade in on Ear Phono Stages and other selected models.

We are PROLO to announce the new Beauhorn B2 Horn Loudspeakers ideal for low powered single ended valve amplifiers.

Also demonstrating the new Graham Slee Projects Range of Affordable Monitors.

New stock including Sonnette's new Bruno product range including digital amp from £80 and matching CD player
Second hand ex dem deals


Densen 3000 power amplifier. Black anodised aluminium. 100 WPC, S/H, boxed, unmarked (£850)...

used cables

Nordost
- 2 x 4m pair Red Dawn (rev2) spkr cables (£550)...
- 2 x 3m pair SPM loudspeaker cables bi-amp (£320)...
- 1 x 3m pair SPM cables bi-wire (boxed) (£290)...
- 1 x 1m pair Valhalla phono interconnect (£785)...
- 1 x 1m pair Valhalla balanced interconnect (£225)...

Other
- 1 x 0.5m pair Chord Chorus (£454) boxed, as new...
- 1 x 1m pair QED Connect 4 (£50)...
- 1 x 1m pair van den hul The First. Unused (£240)...
- 1 x 0.8m pair dHl C9, "The Bay"...

Diverse vinyl

10 charles st newport south wales np20 1ju
01633 259661/256261 sales@diversevinyl.com

NEW TITLES IN STOCK NOW:

Asian Dub Foundation - Enemy Of The Enemy £15.90
Audioslave - Audioslave £16.90
Bob Log III - Log Bomb £9.90
Bonnie Prince Billy - Master And Everyone £13.90
Bright Eyes - The Story Is In The Soil £16.90
Calexico - Feast Of Wire £10.90
Common - Electric Circus £17.90
Erland Oye - Unrest £13.90
Hell Is For Heroes - Neon Handshake £13.90
Kid Loco - Another Late Night £16.90
Laura Cantrell - When The Roses Bloom £16.90
Loose Fur - (Jim O'Rourke/Jeff Tweedy) £13.90
Massive Attack - 100th Window £18.90
Nick Cave/Bad Seeds - Nocturama £12.90
Nirvana - The Best Of £17.90
Pram - Dark Island £13.90
Queens Of The Stone Age - Songs For The Dead £14.90
Reef - Together (The Best Of) £12.90
Richard Hawley - Low Edges £12.90
Santana - The Shamen £14.90
Sea And Cake - 1 Bedroom £18.90
Solomon Burke - Don't Give Up On Me £650
Teenage Fanclub - 4760 Seconds...The Best Of £17.90
The Faynt - Danse Macabre £10.90
Tiga - DJ Kicks £14.90
Tosca - Delhi 9 £TBC

REISSUE OF THE MONTH:

Pink Floyd "Dark Side Of The Moon"
30th Anniversary Edition
Limited LP and SACD with 5.1 surround mix - released 03/03

OTHER REISSUES NOW IN STOCK

Aretina Franklin - Spirit In The Dark £15.90
Banana Splits - We Are The Banana Splits £14.90
Bulldog Breed - Made In England £16.90
Butterfield Blues Band - In My Own Dream/Resurrection £19.90
Charles Lloyd - Love In £15.90
Gram Parsons - GP £13.90
Herbie Hancock - Blow Up (Soundtrack) £15.90
Jackson C Frank - Blues Ran The Game £14.90
Jeff Buckley - Songs To No One (with Gary Lucas) £14.90
Jimi Hendrix - Blues 2LP (Classic Records) £41.90
John Mayall - Blues From Laurel Canyon £16.90
New Colony Six - Breakthrough £15.90
Sun Ra - Hours After/Reflections In Blue £12.90
Tim Buckley - Blue Afternoon £14.90

DISCO ANTI STAT LP CLEANER

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brand new LPs, or visit

www.diversevinyl.com
AUDUSA - OOM Silverlink Mono Crystal balanced speaker cable - conductor of 3mm diameter (approx 8 gauge), stranded silver on OFHC, plus three strands of Mono Crystal Copper for improved bass performance. Mylar infill and with designed in protection against RF and EMI. Cable OD 14.72 mm. Priced at £12.95 per metre

AUDUSA EUPEN CSA 2.5 MAINS CABLE - HI FI CHOICE SEPT 2001 BEST BUY
GNLM 05/04 and GNLM 05/2.5 (CSA 2.5) Cable with FERRITE TECHNOLOGY - A polymer material mixed with a considerable quantity of homogeneously fine high quality ferrite powder is extruded around the copper conductors. As a ferromagnetic material, it will go through hysteresis loops whenever it is under influence of an alternating magnetic field. Consecutively magnetizing and demagnetizing the material will cause considerable losses of high frequency energy. This energy is absorbed in the ferrite grains and converted into heat. This effect is more or less proportional to the frequency; high frequencies will be strongly attenuated, because their energy will be absorbed by the ferrite powder. The GNLM cables which in addition to the above described ferrite technology is further protected with a foil shield and a drain wire and specifically manufactured for High End audio use. Said by some to be the most neutral sounding mains cable on the market

Fitted with IEC (Martin Kayser) and MK Tough Cable can be supplied fitted to our all steel 4, 6 and 8 way distribution blocks. We can rewire the distribution blocks with Eupen cable as an extra cost option. Refer to our web site for details.

AUDUSA Eupen and LAT AC-2 mains cable available with 16 amp IEC (for certain models of amps by Kreil, MF, Levson etc). Marinco 320 IEC, Figure of eight, Bulgin, USA Hubble, European Schuko, Australian, Swiss, Danish, and Neutrik plugs.

SILVER SILVER SILVER - Upgrade the cable with silver plated contacts on IEC and MK plug for an extra £6. IEC’s and MK plugs with silver plated contacts available seperately at £6, £8 and £9

Why Silver plated contacts? Simple, silver is THE BEST conductor of electricity.

LAT AC-2 HI-FI CHOICE - SEPT 2001 - RECOMMENDED MAINS CABLE
We have developed a cabling (weaving) pattern along with an unusual shielding/filtering system that gets rid of the garbage that contaminates your components. The difference you hear with our cord is astounding. Our power cord takes the desired size. No dioding subsequently fused together into a near alloy. The Silverfuse technology starts with seven nines OFHC copper wire with a diameter that is slightly larger than the required size. It is then pulled through a trough of molten silver. The wire with a silver deposit, is then forced through a compacting die where it is subject to tremendous pressure. The silver and the high purity copper are fused together into a near alloy. The compacting fusion also reduces the wire diameter to the desired size. No dioding subsequently occurs with this process. The result provides for the benefits of silver; which are excellent definition and clarity, with the high purity copper benefits of warmth and mellowness.

LAT INTERNATIONAL - Analogue, Digital and Video interconnects and Speaker cable - better than most others at double the price. Refer to www.audusa.com for further details or ask for reviews

SUNFIRE CORPORATION - Snohomish USA
New for 2002 Sunfire True Sub Woofer MKIV - 11 inch cube. Signature True Sub-Woofer 13 inch cube and Junior Sub Woofer 9 inch cube - all with two drivers, to as low as 16hz, 116 SPL and 360 cu ins of air movement, 1200 or 2700 watt patented amp technology. Classic Tube Pre-amp, Solid state power amps 2 channel (300 x 2 or 600 x 2) and 5 channel (220 x 5 or 430 x 5 - yes total of 2150 watts into 8 ohms or 4300 watts into 4 ohms) patented amp technology (no heat sinks) and Theatre Grand II processor pre-amp.

WWW.AUDUSA.COM
Tel: 020 8241 9826, 020 8264 0249 Fax 020 8241 0999 Email: sales@audusa.com
If you’ve always thought of valve amps as temperamental and expensive beasts, think again. World Audio Design’s latest kit is designed with the budget conscious beginner in mind.

The Kec182 was created from a brief that demanded simplicity, ease of build and a super low cost. In order to achieve a reasonable power output we went for a push-pull amplifier.

We chose the ECL82, a triode/output pentode. This tube is readily available and has a good sound. In push-pull mode it delivers 8Watts. Realistically you need a speaker of around 89dB or above. This is possible at a budget price - try the smaller Triangle models, or a Tannoy mX3 or even one of the older Missions like the 773e, or if you like building your own speakers, try the Adire Audio HE10.1, as reviewed in HFW October 2002 issue.

You will see that the front has only a volume control, and it is fed by one pair of phono sockets. A selector and tape/source switch were not used in this amplifier as they are tricky to wire up, and the aim was to make it easy to build. In fact, in many ways the Kec182 would be great powering a second system, using a CD player as a source, and will definitely give you a taster of what valves can offer. Measuring 30cm wide, 23.5cm deep and 11cm height with feet, it is entirely self-enclosed. The valves are visible through the four upper circular vent holes (one directly above each valve). We have kept the look simple with the minimalist front panel holding the volume potentiometer. The two-part chassis is constructed from 1.6mm mild steel with a durable black powder-coat finish. The whole unit is very sturdy, weighing in at 9kgs.

The signal input is in the form of a pair of gold plated RCA phono sockets that sit at the rear of the chassis. The speaker sockets accept 4mm banana plugs as well as bare wire. The mains switch is positioned at the rear of the amplifier, on the right hand corner for easy access. Mains power is received via an IEC lead. The Kec182 is based on a printed circuit board (PCB). The PCB is easy to follow with all component names, locations and orientations shown clearly. The amplifier requires no set up, you just turn it on. The kit will come with comprehensive instructions taking you through the build step-by-step.

SOUND QUALITY BY SIMON POPE

Purity is the key to this amplifier’s design and sound. Because there’s very little to get in the way of the signal what you get is an exceptionally sweet and simple sound that also has a superbly wholesome roundness to it. A high quality recording of Mahler’s Das Lied Von Der Erde on Reference Recordings showed that the Kec182 faithfully reproduced all the depth and space of a full symphonic orchestra without any problems. Violins were smooth and sweet, as was percussion (which virtually sparkled) and the woodwind section was especially impressive, with a spacious and airy sound.

A run through Miles Davis’s Kind Of Blue saw the little integrated delivering a detailed and precise sound that highlighted the warmth of Coltrane’s tenor sax and the rich, deep sound of the upright bass. Rock and Pop records such as Radiohead’s ‘Lucky’ demonstrated that the valves inside the amp, whilst small, are quite robust sounding, with commendable clout and bass depth for a humble budget 8W valve amp. This is a great introduction to the sonic art of the valve amp and a big upgrade for anybody with a mid-price solid-state amp that wishes to swap over to something more musically engaging, for a price that’s virtually as cheap as chips!

MEASURED PERFORMANCE

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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<tr>
<td>Frequency response</td>
<td>+/-3dB 15Hz - 75kHz</td>
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<tr>
<td>Power output</td>
<td>8 watts into an 8 ohm load</td>
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<tr>
<td>Sensitivity</td>
<td>850mV (suitable for CD)</td>
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<tr>
<td>Hum</td>
<td>0.5mV</td>
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</tbody>
</table>

The Kec182 amplifier kit is available from World Audio Design
Tel/fax: 00 44 (0) 1908 218836 or order on-line at www.worldaudiodesign.co.uk

Kec182 amplifier kit (UK price) £195.00 (inc. vat & carriage)
Kec182 amplifier kit (EU price) £195.00 (inc. vat, exc. carriage)
Kec182 amplifier kit (Overseas price) £170.00 (exc. carriage)
Dealers must not advertise in the Private Classified section. Monthly consecutive insertions will be considered Trade advertising. The Publisher reserves the right to judge submissions.

Special Internet offer see page 130 for details

Cyrus Pre £300. Cyrus power £250. Micromega Stage 6 CD £400. All 1996 mint boxed. Jamo Concert 8 cherry new £1300 now £550. Tel: 07890 655752 (Apr)

Audio Innovations 2nd Audio monoblocks Golden Dragon ZA3 valves excellent condition (£3000) will accept £950. Richelko RK25 speakers, two drivers, super sensitive and incredibly detailed including cradle stands £600. Tel: 01208 872316 (Apr)

Linn KLMax twin stereo power amplifier mint boxed £4500 ono. Tel: Barrie 01323 487781 Mobile: 07767 456374 (Apr)

KEF 105.4 speakers, need driving, good with valves, moderate use, IC hi-fi size or Soundshaper 3 19" £8513 after 7pm. (Apr)

Please contact Sat on 07947 470 018 anytime (Apr)

Sonus Faber Elcata Amator 2 speakers, stone wood stands. boxed: £1900 ono. Piamino M16 Pre amp with phono and phase inverter switch, silver, c/w remote £1850 ono. All as new. Tel: 01536 398369 (Apr)

Krell KMA 200 Monoblocks. Excellent condition, few in the UK. Massive heavy amps, difficult to lift one. Very clear and transparent without being clinical. Drive any load, £1995. Tel: 01803 214200 (May)

Thiel CS2.3 cherry with latest co-axial driver, excellent performer, USA best buy. RRP £3500, looking for £2225 PX possible. Tel: 01245 251 235 (Apr)

Sony JAD05 MiniDisc recorder black, mint, £185. Tel: 01752 777 369 (Apr)

MUSICAL FIDELITY XA-1 amplifi- er £295 ono. Cyrus Illi amplifier £275 ono. Both mint with boxes, genuine reason for sale. Tel: Nick 01733 896 581 after 6.30pm (Peterborough) (Apr)


WANTED: I wish to contact someone with Quad 989 loudspeakers to compare results in Sussex, Surrey. Will bring iD. Tel: 01323 737 850 ansrphone. (Apr)

Crofts 3R OTL power amplifier £795. Audio Synthesis Passion 8M (passive) remote controlled full sized pre amplifier balanced RCA connections £795. Nordost SPM/RE1 between pre and intercon- nects £395. All very good condi- tion. Tel: 01992 581 576 (Apr)

UNISON RESEARCH Simply 4P integrated amplifier £200. boxed £340. Tel: 0131 225 9002 or Email: snugseam@ed.sac.ac.uk (Apr)

INFINITY KAPPA 5 Reference speakers £320. Castle Warwick speakers £80. A&R Cambridge A60 amplifier £95. Rotel 965X CD player £120. Trio D75P0 CD player, early model £75. SME 3009 £2195 £100. Tel: 01224 646 473 (Apr)


TOMET MODEL Ones, high end bookshelf speakers, mint, mahogany, £595. Target Reference Four stands, boxed £240. Name 72 preamp, 140 poweramp, green facias, mint £975. Play split. Tel: Tony 020 895 0526 (Apr)

Quad 989 loudspeakers, mint condition, very little use, boxes and feet etc., £3000 Tel: 01302 360939 (Doncaster) (May)

Lowther Academy: Horn loudspeakers. Piano black 2PM7 per side, one owner, six years old, mint condition, undriven costs £2400, £1200 negotiable. Tel: 020 8743 0580 after 8pm or 07905 470 016 (Apr)

WANTED: £1250 HP Q60 ono with free cable. Tel: 01438 231776 (Apr)

Quad ESL 63 electrostatics plus stands, serviced by One Thing Audio £1000. Linn Kolor preamp £300. Van den Hul Revolution speaker cable with WBT spade £650. All boxed. Tel: 02972 378 378 (Apr)

Naim N 500 power amp, new £1200, Naim 2 pre-amp, Supercap power supply, Linn LPI12, Lingo, Linnok, van den Hull, two Russik Equinox speakers. Mana Acoustics Reference wall shelf. Tel: 0790 353 0451 (Apr)

Audio Note DAC 1 Signature valve DAC superb warm dynamic range £275. REL Stax Is subwoofer £375. Musical Fidelity XLR-3 phono stage new boxed £100. Tel: 01536 398369 or Email: norman@hollin@aaol.com (Apr)

Mana Reference turntable/ equipment, table. Two tier, no room in new house! £125 or near- est Tel: 01746 766236 (Shropshire) (Apr)

Black Diamond Racing cones Mk3. Three sets of 3. Mk4 eight sets of three £40 per set Tel: 01249 821288 (Apr)
Upgrade Your Turntable

"It's value is nothing short of tremendous"
Listener Magazine

"The single most important upgrade you can ever make to any record deck concerns the motor drive...Nothing can compare you for the shock of going DC, in a word, Gobsmacking"
Common Ground Magazine

"...if you are thinking of upgrading your system....the Origin Live DC-motor kit should be high on your list for consideration" TNT Audio

Whatever your current turntable, the results in upgrading to the Origin Live DC motor and power supply are simply astounding. Designed as a drop in replacement for almost all turntables, the Origin Live upgrade kit offers vast improvements to all versions of Linn turntables, as well as Ariston, Rega, Systemdeck, Roksan, Rock, Oracle, Thorens, Well Tempered etc. With only a 12 Volt power supply and a full set of illustrated instructions our upgrade is both easy and safe to install. The upgrade is also offered with a full money back guarantee if you are not satisfied. The kit consisting of a high grade dc motor, soldered regulator board and power supply is only £262. This provides an extremely cost effective route to truly high end audio and is significantly superior in performance to other power supply upgrades costing 4 times the price. A larger purpose built transformer is also available as an optional extra at £175.

Turbocharging your Rega arm

"Nothing less than total dynamite" Hi-Fi World

If you are the proud owner of any rega toneram, you are now in the enviable position to transform it's performance into the league of super arms with modifications offered by Origin Live - the Origin live structural modification at £75 will enable your Rega to perform at a level exceeding that of arms costing over £1200. High performance rewiring with high grade litz cable is also offered at an additional £70 and external rewiring is £70 this further increases the performance.

"I have to say the Rega modifications turn this humble arm into a real Giant killer. Gone is the rather grey, sterile sound of the cooking Rega. Instead, tonal colour is fresh, dynamics have great speed and impact, and the sound stage is huge."
Hi-Fi World, Nov 97 (structural modification on RB250)
What Hi-Fi? gave this modification 5/5

Structural Modification - £75
Internal Rewiring - £70
External Rewiring - £70
For arm modifications we normally return your arm in 2 - 3 days.

Origin Live Ultra Turntables

Build & setup in an hour

"...this Vinyl front end had my jaw heading towards the floor with the solidity and transparency of the music it was making...with all these goodies in place the Standard would give turntables at the £1200 -1400 mark a hard time...
...Overall a deeply impressive deck.....brilliant value for money...component quality is superb and the build process is a doddle."
Hi-Fi World

"the best sounding deck here (group comparison test of 8 leading turntables)....sounds fantastic."
What Hi-Fi?

"One of the most enjoyable and musically involving turntables I have ever heard...Regardless of make or reputation"
Audiophile

Now you can own a professionally built, high performance turntable at a fraction of the normal cost. Origin Live turntable kits are supplied in 3 different specifications:

1. A standard kit of parts to enable you to build your own plinth at £282
2. The complete standard kit offered with a non-suspended pre-drilled & finished plinth at £349
3. The complete ultra kit comes in two options. The Ultra Kit Classic offering a truly high end suspended sub-chassis turntable with beautifully finished solid wood plinth. The Ultra Kit modern offers the performance of the Ultra Kit Classic combined with the modern day skeletal styling of our sensational resolution turntable. Both options available at £538.00

All kits are supplied with well illustrated instructions and are easier to assemble than many of today's pre-built turntables.

FOR MORE INFORMATION SEE WEBSITE OR CONTACT
Origin Live, Unit 5, 362b Spring Road, Sholing, Southampton, SO19 2PB, U.K.
Tel: 023 80578877 / 80363249 Fax: 02380 578877 e-mail: originlive@originlive.com
http://www.originlive.com
LUMLEY ST70 power amp £2250 £750. Two 4f. Kimber RTC mains leads £90 each. Kimber Torch digital balanced interconnect 1/2 metre £170. Wanted: Kimber silver reference mains. Tel: 01772 314151 or Mobile: 07751 475062 (Apr) (f)

NAIM 135 monoblocks £1750 (£3500). Kef 105/3 Reference Series £1800 (£3500) all boxed. Tel: 01827 820358 or Email: david.hothi@vtes.co.uk (Apr)

SEDUCTIVE STYLE and Sonics combined in top of range Micromega Drive 2 + DAC two box CD player with XLO balanced digital interconnect, remote, boxed, manuals. £1750 new: £700. Tel: 07778 591188 (Hungerford Smns 14 J) (Apr) (f)

J.M. LAB Elektra 926 floor standing speakers as new 6 months old cherry cheaks gray grille genuine reason for sale cost £2100 sell at £1300 Tel: 01634 268071 (Apr)

LOWTER DELPHIC loudspeakers fitted with latest specification EX4 drive units finished in American walnut and excellent order. A rare opportunity to purchase these fine loudspeakers £2000 Tel: Mike 01758 741026 (Apr)

E.A.R. 864 audiophile valve preamplifier balanced in/out £1530 £1100. Roikran power amplifier 4 x 90w or 2 x 140w suitable biamping or cinema (£1000) £775 both items very new boxed with handbooks Tel: 01243 863371 (W/Sussex) (Apr)

SONY CDC SS55ES gold mint condition £750. Tannoy Revolution 2 cherry £200. Jamo Concert II and Jamo Concert centre both cherry £1350. Tel: 07713 258836 (Apr) (f)


LUXMAN WL717 FM/tuner with wooden sleeve mint condition £50. Exposure loudspeaker cable 4 x 3 metres biwire/ bi amp usage £25. van den Hul CS12 loudspeaker cable 4 x 7.5 feet lengths £70. Tel: 01509 215230 ask for Mike (May) (f)


CASTLE HOWARD S2 speakers in cherry. Bi wireable. Cost £1150 new accept £450 ono. Tel: 01661 834378 (N. Earl) (Apr) (f)

NEW LINN Amps Kairn with Klouze250 for sale as new in sealed box. Genuine reason for sale. Please call 01733 252 219 for further details. Call for pricing (Apr) (f)

WOODSIDE (RADFORD) integrated valve amp 30/wpc new valves excellent condition £1100 (1995) swap for Audiolab Boontec tuner Tel: John 07901 802649 or 01268 745416 anytime (Apr) (f)

MUSICAL FIDELITY E100 integrated amp (or pre or power) £250 (£750 new), boxed, mint. Epos ESII speakers, target stands £250. Tel: Neil 01547 522047 (Apr)

RECORD DECK, Pearl Audio well tempered classic, gloss black (£4000) £1350 one. Loudspeakers, Ruairi Accadles, cherry/mahogany polished cabinets (£1500) £500 one. Kimber XLR-XLR interconnect (£175) £75 on. Tel: Allan 0117 521341 (Bristol) (Apr)

TECHNICS AMPLIFIER SL-V820, Disc player SL-P5620A, Cassette deck RS-BX828, Equalizer SH-GF70, Videologic Dub-tuner, Wharfedale speakers, cabinet stands £350 on. Tel: 01708 762876 after 7pm. (Apr) (f)

EOCSA MAESTRO SE interconnect 0.8 metre, phone as new only one month old, cost £159, will accept £85. Tel: 02828 277129 or Mobile: 07713 882469 (Apr)

REGA PLANAR 3 RB300 with Origin Live counterweight and wiring mods. Mancitore megabearing, Linn Valhalla P5 £300 complete. Michell ISO M/M phonostage stage £125. Tel: 01372 222270 (days) 01773 715705 (eves) (Apr)

BEARD PSO model valve amp, Ear B34P 'systemdek', Tbaris, expander, wallstand, leads, spare valves £600 the lot. Xocd, £50 all good working order may split. Tel: 01753 643890 after 6pm (Apr)

UDIOLAB CDM 8000 transport 8000 DAC £680. Musical Fidelity A1001 £895. B&W CDM7NT cherry seven months old still under warranty £70. Tel: Steve Petch 01429 266218 or Email: stephen.pech@ntworld.com (Harptpool, Teesside) (Apr) (f)

TUBE TECHNOLOGY valve amps TT Prophet pre amp £675 (cost £2000) TT Ulyssis Signature power amp £675 (cost £2000) matching Vibed stand £195. Tel: 01491 628075 or 07736 808828 (Apr)

WANTED: NAIC NAC82, NAP250 Hi-Cap, must be in mint condition. Tel: 01246 232 085 (Apr)

PRIME D30-2 CD player latest model with Sony transport cost £1500 new sell £800. Hadcock GH 220 tonearm in original box £80. Tel: 353 754 501 Mobile: 353 86 393 8486 (Ireland) (Apr) (f)

ATC SCM50A active loudspeakers £3000, ATC SCM2 pre-amp £2000, Pink Triangle Da-Capo with 1307 filter £600. All vgc. Tel: 01531 643280 or Email: enquiries@countryparks.com (Herefordshire) (Apr)

LINN IKeMbi boxed £130. Bryston 7BST mono blocks £2200. Dynaudio 3 way floorstanders white ash £450. Denon 715 CD player £60. Tel: 01635 29244 (Berks) (Apr)

AUDIOLAB 8000m monoblocks pair £800. Mission 753 speakers £400. Musical Fidelity XLP and PSU £150 pair, all boxed as new only one month old, cost £159, will accept £85. Tel: 02828 277129 or Mobile: 07713 882469 (Apr)

YAMAHAA NS1000M, mint, custom made stands, boxed £745. Musical Fidelity T1 analogue tuner, visual match to A1 amplifier, professional off board power supply, mint, £175. MAF Audio classic four pillar speaker stands £50. Tel: 07967 546 089 (Apr) (f)

VALVE Hi-Fi For sale: Several Quad pre/power amplifiers. Leak, Armstrong, Rogers, Luxman receiver. Tannoy, Linn LP12 fancy arm and cartridge. Suitcases of valves. Tel: 01494 763 042 (Bucks) (Apr)

XTW COW Mattt condition, boxed £1350. EAR 'The Head' MC transformer: mint £300. Meridan DAC, boxed, £100. Sudgen AUS1C mint condition £380. Rotel RCD708BX CD player £140. Tel: 01942 707 751 or 07997 300 421 (Apr)

LINN KARID CD player, boxed, £720 ono. Musical Fidelity P180 power amplifier and CRPS power supply, 80 watts, perfect working order boxed £600. Carriage can be arranged economically. Tel: 01691 659 604 (Apr)

MONITOR AUDIO Silver 8 (new Series) natural ash, like new (20 hours listening time), Nordost Blue Heaven and Red Dawn cables for interconnect. Offers invited. Tel: Marco 020 7472 5610 or 07403 4214 (Apr)

EPOS ES11 Speakers £200. Krell KPS20i CD player £450. Sansui T-80 tuner £75. Tel: 01636 830 944 or 07799 536 753 (Apr)
### S/hand and ex-demo Clearance Items - APRIL 2003

#### CD players DACs & Transports

<table>
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<th>Was</th>
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<tr>
<td>Audio Synthesis Decade HDCD DAC S/H</td>
<td>2800 1599</td>
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<tr>
<td>Theta Data Basic Transport S/H</td>
<td>2398 699</td>
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#### Turntables Tonearms & Cartridges

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<tr>
<th>Item Description</th>
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<tr>
<td>Basis 2000/RB300 Turntable x-Demo</td>
<td>1999 1299</td>
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<td>Basis 2001 Turntable x-Demo</td>
<td>2999 2299</td>
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<td>Basis 2004 Turntable x-Demo</td>
<td>4500 2799</td>
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<tr>
<td>Heed Audio Quazar 2 Box Phono Stage New and Boxed</td>
<td>599 399</td>
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<tr>
<td>Lehmann Audio Black Cube SE New &amp; Boxed</td>
<td>650 399</td>
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<td>McCormack Phono Stage New and Boxed</td>
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<tr>
<td>Origin Live 250 Silver Tonearm S/H</td>
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<td>Roksan Xraxes Rosewood Linn Cut S/H</td>
<td>N/A 279</td>
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#### Preampifiers

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<td>Advantage S2 Balanced Silver S/H</td>
<td>2750 1399</td>
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<tr>
<td>Bel Canto Pre1 Remote controlled Balanced x-demo</td>
<td>2500 1799</td>
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<tr>
<td>Bryston 25P Remote Controlled Balanced S/H</td>
<td>1700 1099</td>
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<tr>
<td>CAT SL1/MkII Reference Phono Pre amplifier S/H</td>
<td>6500 3799</td>
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<tr>
<td>EAR 802 Valve Preamp S/H</td>
<td>1599 499</td>
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<tr>
<td>Einstein &quot;The Tube&quot; Preamplifier x-Demo</td>
<td>6000 3999</td>
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<tr>
<td>Krell KAV-S Preprocessor/Preampifier DTS/AC3/Pro Logic S/H</td>
<td>14989 3750</td>
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<tr>
<td>Roksan L2 preamplifier S/H</td>
<td>1295 499</td>
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#### Amplifiers

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<tr>
<th>Model</th>
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<tr>
<td>Audio Analogue Maestro Integrated x-demo</td>
<td>2700 1899</td>
<td></td>
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<tr>
<td>Bel Canto Evo 200.2 Class T Power Amplifier X-demo</td>
<td>2500 1899</td>
<td></td>
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<tr>
<td>Bryston 4BST Stereo Power Amplifier S/H</td>
<td>2400 1399</td>
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<tr>
<td>Bryston B60R Amplifier S/H</td>
<td>1550 1099</td>
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<tr>
<td>DNM PA3S Stereo Power Amplifier S/H</td>
<td>2900 1699</td>
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<tr>
<td>Electrocompaniet ECI-3 Integrated x-demo</td>
<td>1249 799</td>
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<tr>
<td>Graaf GM20 OTL Stereo Valve Amplifier S/H</td>
<td>3295 1885</td>
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<tr>
<td>Lavardin IT x-demo</td>
<td>3200 2250</td>
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<tr>
<td>Parasound 1205 multichannel amplifier x-demo</td>
<td>1695 1199</td>
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<tr>
<td>Pass X150 Stereo Poweramplifier S/H</td>
<td>4750 1999</td>
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<tr>
<td>Roksan Rok S1.5 Power Amplifier S/H</td>
<td>1499 945</td>
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<tr>
<td>Union Research S6 Valve integrated S/H</td>
<td>1600 1199</td>
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#### Speakers

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<th>Model</th>
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<tr>
<td>BKS 107 MKII Supreme Ribbon Hybrids x-demo</td>
<td>2199 1599</td>
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<tr>
<td>Celestion A1 Cherry S/H</td>
<td>899 249</td>
<td></td>
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<tr>
<td>Indigo Model Two Centre Channel Cherry S/H</td>
<td>199 129</td>
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<tr>
<td>Im Lab Micro Utopia Dark Cherry New and Boxed</td>
<td>4500 3799</td>
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<tr>
<td>Im Lab SW900 Subwoofer S/H</td>
<td>1079 699</td>
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<tr>
<td>Opera Operetta Mahogany x-demo</td>
<td>795 575</td>
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<tr>
<td>Wilson Benesch Orators Cherry S/H</td>
<td>2800 1599</td>
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### Cables & Accessories

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<tr>
<th>Model</th>
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<tr>
<td>Air Pod size 1 x3 S/H</td>
<td>210 99</td>
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<tr>
<td>Cogan Hall EM-D 0.6m S/H</td>
<td>199 99</td>
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<tr>
<td>Finite Elemente Pagode E55/04 4 Tier Maple Stand x-demo</td>
<td>849 599</td>
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<tr>
<td>Opera Lux 3 Tier Table Clear/Stainless x-Demo</td>
<td>950 499</td>
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<tr>
<td>Roksan HA01 1M Interconnect S/H</td>
<td>99 49</td>
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<tr>
<td>Roksan HA01D 0.5m Digital Interconnect S/H</td>
<td>49 25</td>
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<tr>
<td>Target HR60 Silver Stands S/H</td>
<td>199 109</td>
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<tr>
<td>Target R2 Stands S/H</td>
<td>329 199</td>
<td></td>
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<tr>
<td>Transparent Music Link Ultra Balanced 7.26m S/H</td>
<td>2349 1499</td>
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<tr>
<td>Transparent PL20XL Power cord S/H</td>
<td>1260 799</td>
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<tr>
<td>Transparent The Wave 2X7m S/H</td>
<td>599 199</td>
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### Tuners & Tape Decks, Power Supplies

<table>
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<tr>
<th>Model</th>
<th>Was</th>
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<tbody>
<tr>
<td>AKG C1000 Condenser Mic S/H</td>
<td>241 120</td>
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<tr>
<td>Magnum Dynalab FT-R Remote Switcher for FT101A/Etude (New &amp; Boxed)</td>
<td>450 299</td>
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<tr>
<td>Rega RadioR Silver x-demo</td>
<td>498 299</td>
<td></td>
</tr>
<tr>
<td>Revox B77 MKII Reel to Reel _ Track S/H</td>
<td>2800 699</td>
<td></td>
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<tr>
<td>Sony TCD10 Pro DAT Portable/Recorder S/H</td>
<td>2500 995</td>
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### Bargains under a £100

<table>
<thead>
<tr>
<th>Model</th>
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<tbody>
<tr>
<td>Sony TCK-461s 2 head cassette decks new &amp; boxed</td>
<td>199 99</td>
<td></td>
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</tbody>
</table>

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(£2300) £1300. Tel: Jules on
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*Pathos Acoustics Logos, 110 Watts/channel. £2495

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