Eastern Electric M520 tube integrated vs. Sugden A21a, Marantz PM-15S1 and Lyngdorf SA11 2175

POWER SPECIAL
- USHER R1.5 - CLASS A POWER
- ARCAM FMJ C311 / PL PRE-POWER
- DENSEN B-250 / B-330 PRE-POWER
- MUSICAL FIDELITY kW750 PRE-POWER
- SONIC IMPACT T-AMP TWEAKING SECRETS
- AMPLIFIER-SPEAKER MATCHING EXPLAINED
- VALVE POWER STATION: T+A V10 INTEGRATED
- THE POWER GAME: CLASSES A, AB AND D FACE OFF

10 PAGES OF HI-FI Q&A * CLASSIFIED ADS
The experiences this chair has had! The amazing performances, concerts and gigs it has witnessed from all around the musical world. From the front row at Carnegie Hall to the stalls at Brixton Academy, from the dress circle of the Sydney Opera House to the bar in Ronnie Scott's - this chair has been there! It has experienced music as it should be heard - alive and vibrant, with every nuance and emotion as clear as the musicians intended.

The Rotel 02 Series is a new range of hi-fi from a company with a reputation for delivering award-winning sounds at realistic prices. The 02 Series' superb sound is the result of Rotel's Balanced Design Concept - an integrated approach that ensures five star performance.

To find out how the Rotel 02 Series can take you to the world's greatest musical venues, visit www.rotel.com.

The Rotel 02 Series

including the RA-03 amplifier
If journalism, as G.K. Chesterton famously put it, is 'literature in a hurry', then it's the 'hurry' bit that seems to sell magazines...

Conventional wisdom goes that 'scoop' reviews sell, and timing is all important. Readers, it appears, are desperate to know all about new bits of kit - but only if it's before their friends and family!

Well, although this magazine has more than its fair share of brand new product reviews (indeed some of our rivals manage to 'scoop' something after it's been on our front cover months before!), I'm not convinced that they're so much use to those wanting the best possible sound.

You see, it simply doesn't follow that the latest 'awards winner' will actually deliver the sonics goods in your system, despite the shower of purple prose lavished upon it by over enthusiastic hi-fi hacks in a hurry to hit their deadlines.

The beginning and end of system sound is synergy - and discovering great combinations of amplifiers and speakers (the critical meeting point in any system) doesn't lend itself to magazine production schedules or front cover razzmatazz...

(Think how it would be touted, "unlikely pairing of two well established products that aren't award winners found to work surprisingly well together shocker"? Not exactly sexy, and unlikely to sell more magazines - but very useful to audiophiles.)

That's why this month's issue focuses on the critical conjunction of amplifiers and loudspeakers. We're asking if power is really all that's needed to move you (and your speaker cones), and how best to get it. Our super test (p15) looks at pure Class A operation from transistors and tubes, plus Class AB and Class D amplifiers too.

We look at monster amplifiers from Musical Fidelity (the kW750, p10) and Usher (the R.15, p34). We try two different pre-power combos (Arcam's new C31/P1, p36; Densen B-250/B-330, p44), each with three different types of loudspeaker. We audition Elac's stunning FS607 X-Jet with the best tube and transistor amplification around on p48.

On p59, Mission's erstwhile Director of Acoustic Design Peter Comeau explains the problems faced when matching amplifiers to loudspeakers. Valve guru Noel Keywood gives T+A's high end VI 0 integrated the treatment on p52 and amplification around on p48.

We review thoroughly by extensive auditioning, rather than by quick-fire group listening tests. Our engineering team designs a wide range of products in-house. No other hi-fi magazine is so expert and dedicated.
15 Sugden A21a Class A integrated meets Class AB and Class D rivals...

48 Elac FS607 X-JET - stunning towers of power, but worth £5,000?

40 Powered Up: Noel Keyworth tackles the issues of amplifier and speaker power.

63 John May shows you how to tweak the world's best bargain integrated: Sonic Impact's T-Amp.

52 T+A's V10 is a tubular beauty and a viable power station too, says Iain J. H. Todd...

27 Eastern Electric's Minimax 520 is the other Class A contender in this month's supertest; read the verdict here.
POWER SPECIAL ISSUE:

ABSOLUTE POWER 10
Channa Vithana auditions Musical Fidelity's monster-ous kW Hybrid Line Preamplifier and kW750 Power Amplifier.

FIREPOWER 15
Four integrated amplifiers from Sugden, Marantz, Lyngdorf and Eastern Electric, running Classes A to D, face off...

HEAVY METAL 34
Usher's R1.5 is a pure Class A power amplifier with a difference, says Stewart Wennen.

NEW MONEY 36
Dominic Todd auditions Arcam's new C31/P1 high end preamplifier/power amplifier combo with three different types of loudspeaker.

POWERED UP 40
Noel Keywood pontificates on matters of power...

COOL RULER 44
Densen's svelte B-250/B-330 power amplifier combo gets the treatment from Channa Vithana and three pairs of loudspeakers...!

JET STREAM 48
Bristling with trick technology, Elac's FS607 X-JET is an interesting loudspeaker, but does it fly? David Price stands by...

V10 POWER 52
There's nothing anaemic about T&A's V10 tube integrated amplifier, says Noel Keywood...

INTERFACES 59
Peter J Comeau explains the art of matching amplifiers to the outside world...

D-LITE! 63
Sonic Impact's diminutive 'T-amp' can easily tweaked to better exploit its true potential, explains John May...

LJK SETRIGHT: A TRIBUTE 80
Linn Products' Ivor Tiefenbrun pens a paean of praise to the late, great Leonard Setright.

7 NEWS
words from the front...

69 COMPETITION
Win a pair of superb Pinsh One loudspeakers worth £1,200 in this month's great competition!

71 SUBSCRIPTIONS
Ensure your copy every month and save money too.

72 VINYL VAULTS
Paul Rigby rounds up the latest audiophile vinyl releases.

74 WORLD AUDIO DESIGN
Superb sounding valve amplification for do-it-yourselfers.

76 WORLD LIBRARY
A wide selection of specialist audio books for sale.

78, 79, 81 OPINION
The team get to grips with matters music, hi-fi and life!

83 WORLD CLASSICS
Brilliant designs that have stood the best of times, listed.

91 WORLD STANDARDS
Our fave raves - the latest and greatest from the world of hi-fi.

98 KIT & COMPONENTS
Purveyors of specialist hi-fi services.

99 MAIL
Ten pages of your views and comments.

109 MARKETPLACE
Masses of pre-owned audio equipment for sale.

118 DIAL-A-DEALER
A comprehensive guide to UK hi-fi retailers.

120 SPECIALIST HI-FI DEALERS
Purveyors of specialist hi-fi services.

121 MEET YOUR MAKER
Who makes what and how to get in touch.

123 CLASSIFIEDS
Five pages of second-hand bargains.

128 NEXT MONTH
Here is but a small selection of what we hope to bring you in the next sizzling issue...

129 ADVERTISERS' INDEX

130 CLASSIC CUTS
Frank Sinatra's 1957 gem, 'Come Fly With Me', gets an affectionate tribute from Paul Rigby.
“This DALI speaker is brimming with talent and seduction.”
“A new candidate in the world of top-of-the-range speakers at competitive prices.”

Robert Lacrampe & Jean Hiraga | Revue Du Son & Home Cinema | ’04

“In stereo configuration, the Helicon 400 ascended to the top of a very short list of premium $4k-per pair floorstanders.”

Neil Gader | The Perfect Vision | Nov/Dec ’04

“Imaging is superbly spacious and “out of the box”, with precise focus and good depth layering.”

Paul Messenger | Hi-Fi Choice | March ’05

“While this speaker's alluring good looks might make even a super model green with envy, its sound is better still.”

Neil Gader | The Absolute Sound | Dec ’04/Jan ’05

Features:
- Wide Dispersion
- 3D Audio
- Low Resonance Cabinets
- Time Coherence
- Hand Crafted
- Amplifier Optimized
ENIGMA VARIATIONS
Italian audio specialist Audio Analogue’s products are invariably svelte and stylish (as well as sonically very accomplished), so it was interesting to hear of this, the new Enigma ‘multifunction audio unit’. Said to be, “the perfect one-box solution for today’s space and style-conscious customers”, it boasts a high quality 50 watt integrated amplifier, CD player and an AM/FM tuner. Add to this its use of valve technology for improved sound quality and a price tag of under £500 and it’s an interesting bit of kit alright. For more information, click on www.ukd.co.uk.

SLIM DEVICES
NAD’s new TS14 DVD/CD Player has a slim chassis that’s ‘stylish and attractive’ enough to partner to any one of NAD’s high performance A/V Receivers, the company says. Its DACs are capable of reproducing 24bit, 96kHz audio resolution and Progressive Scan with 3:2 pull down (film detection mode), with Component Video. The TS14 also supports DTS surround sound formats, with the assistance of an external decoder; as well as Dolby Surround formats. The analogue output stages are fed from separate regulated power supplies, and use audiophile quality parts. The NAD TS14 is available now from selected NAD specialist retailers at a suggested price of around £159.95. For more information, click on www.nad.co.uk.

NEW MUSIC
The ever prolific Musical Fidelity is expanding its not inconsiderably sized kW range with a new separate kW 25 transport and DAC. The new £1,999 kW DM25 transport offers turntable-style suspension with user-adjustable ride height, twin choke power regulation for transport, AES/EBU digital balanced output separate for left and right at 96kHz, claimed to ensure maximum possible information transfer to the DAC. All the electronics associated with the 96kHz digital balanced AES/EBU output have a sophisticated regulated power supply. The custom-made extruded front panel, handles, and side panels are all from high quality milspec aluminium. The £1,995 kW DM25 DAC has two inputs, the first being dedicated to the DM25 transport (AES/EBU digital balanced at 96kHz) left and right separately, the second for standard digital format in either coax or optical. It will accept and automatically switch between 32kHz, 44.1kHz, 48kHz, 88.2kHz and 96kHz. The input stage has its own separately regulated power supply for each stage. The DAC is dual differential (one entire dual DAC for each channel) and upsamples to 24bits at 192kHz. It is said to have extraordinary linearity, incredibly low noise and ultra low distortion across the bandwidth.

Importantly, because it’s upsampling at 192kHz, any digital artefacts are way out of the audio band and cannot create any in band intermodulation. The digital filters are at least an octave and a half above 20kHz - way, way above human audibility. The DM25 DAC has two output stages operating in parallel; one tube configuration and the other solid state Class A. Watch out for an exclusive review in Hi-Fi World next month, or for more information now you can call Musical Fidelity on 020 8900 2866 or click on www.musicalfidelity.co.uk.

BLACK IS BACK
Black Rhodium’s new and improved Rhapsody stereo audio interconnect is claimed to deliver “an exceptionally impressive, natural, smoother and much clearer musical performance”. Benefiting from improved production techniques, every pair of New Rhapsody cables is twisted together, which is said to “achieve the most remarkable and natural improvement in musical performance, with smoother natural clarity of sound”. Rhapsody Interconnect is hand crafted at every stage of assembly, using high quality materials and finished in bright yellow. It has 24 strand 0.2mm diameter tinned copper conductors insulated in Low Loss Silicone Rubber, twisted and terminated with high quality chrome phono plugs for easy insertion and extraction from equipment. Price is £30/m. For more information, click on www.blackrhodium.co.uk.
Radialstrahler

The revolutionary construction of MBL speakers is capable of producing three-dimensional sound that reflects the acoustic nature of real instruments. This concept is as simple as it is brilliant.

Like musical instruments, the “Radialstrahler” radiates the sound waves omnidirectional - not only in one direction like conventional speakers.

Spacious and crystal clear sound - that's MBL

Our passion is two channel high-end stereo in combination with outstanding quality and vanguard design.

Hand manufactured in Germany since 25 years.

A class of its own

Just arrived:

Finally, the stunning MBL audio systems are available in the UK. Unique radial emitting "Radialstrahler“ speakers, accompanied by extremely musical sounding CD transports and D/A converters, as well as powerful yet subtle amplifiers are the results of our demand for perfection in high-end.

Proudly distributed by
SOUND VENTURE
Audio Systems

MBL Distributor for the UK and Ireland
T: +44- (0)1932 - 86 45 48
www.soundventure.co.uk
email: sales@soundventure.co.uk
The P’7131 features patented design and technology, producing the world’s only AM/FM/SW and XM Ready Radio Receiver, offering the ease and convenience of listening to radio from local, distant, and orbiting origins. It should sound good – its twin AE drivers in a ported compact cabinet playing high bit-rate stations can give better clarity than DAB radio. Price is under £200, on sale before Christmas. For more information, click on www.acoustic-energy.co.uk.

**POD FI**

Boston Audio Design has a new ‘Hi-Fi Industry Podcast Series’, said to be the first podcast series to focus exclusively on high-end audio. The podcasts will be in live interview format with questions submitted by the public, released monthly and may be downloaded automatically via RSS or manually by visiting the Boston Audio Design website. The podcasts are free of charge. By allowing the public to ask questions directly of leading industry manufacturers and personalities, the podcasts will give audiophiles worldwide a new way to learn about and interact with the audio community. Also, by syndicating the podcasts through hubs like Apple’s iTunes, the podcasts will help promote hi-fi to a wider audience. The first podcast will be available this fall and will feature a rare interview with artist and turntable designer Simon Yorke of Simon Yorke Designs. Remember that Podcasts do not require the use of an iPod – the MP3 files can be listened to on a computer or burned to a CD. Click on www.boston-audio.com for information.

**UNESOTERIC**

From the same company responsible for some of the very best digital transports ever made, comes an altogether more affordable purchasing proposition in the shape of Teac’s new DV-20D universal disc player. Able to play back all major formats - SACD, DVD-Audio, DVD-Video and CD - it also has progressive-scan video output, and DTS and Dolby Digital processing behind its ultra-slim aluminium front panel. The diminutive digital disc spinner measures a silph-like 435x64x330mm, weighs 3.3kg and costs under £200. For more information, click on teac.co.uk.

**NEW ENERGY**

Acoustic Energy, commonly associated with high end mini monitors, has unveiled the world’s first Wi-Fi internet radio capable of accessing over 10,000 stations across the globe! The AE Wi-Fi radio is said to be the first streaming media device capable of accessing over 99% of internet radio stations broadcast online anywhere in the world. Compatibility with all three major streaming formats gives the AE Wi-Fi radio unrivalled choice of content from London’s BBC Radio1 to Sao Paolo’s Radio Calypso! No subscription to pay, no signal coverage problems and no international content boundaries. Designed in the UK by AE in conjunction with internet radio technology expert Reciva, the radio automatically links into your existing Wi-Fi network (with WEP encryption if enabled) and uses your broadband connection to access Reciva’s internet radio Gateway. The Reciva Gateway then uploads channel listings alphabetically by country and genre to your AE Wi-Fi radio. There are currently over 2,500 stations registered on the Reciva Gateway and more are added every day. You simply select the station name you want using the rotary control knob and clear LCD display, and press play – as simple as that. It should sound good – its twin AE drivers in a ported compact cabinet playing high bit-rate stations can give better clarity than DAB radio. Price is under £200, on sale before Christmas. For more information, click on www.acoustic-energy.co.uk.

**TIVOLI THREE**

Ruark Acoustics has expanded the DAB options in its Tivoli range with the Tivoli RADiOworks DAB system. Comprising a MODEL DAB, MODEL DAB STEREO SPEAKER plus MODEL CD, this system provides Tivoli’s unparalleled radio DAB and AM/FM tuner, remote control CD player and twenty watts of stereo sound. The Tivoli Model DAB offers the best of analogue and Digital Radio for radio lovers everywhere, all wrapped up in Tivoli’s distinctive compact cabinet playing high bit-rate stations can give better clarity than DAB radio. Price is under £200, on sale before Christmas. For more information, click on www.acoustic-energy.co.uk.

**RIP AND BURN**

CDlabs offer CD ripping to the FLAC digital music file format using Hi-Pro Encode, the name given to the company’s new bulk ripping service. The recent popularity of new home network audio players such as the Sonos DMS, Squeezebox and Roku Soundbridge have led to an increased interest in true high fidelity digital music, and FLAC is becoming one of the most popular of these ‘lossless’ formats - music files that suffer no loss in audio quality when converted from CD. CDlabs now offers FLAC as part of its standard encoding service, which uses rigorous CD data extraction and encoding algorithms which guarantee superb quality results – with MP3(vbr to 320kbps), WMA, AAC, and others. Tagging is also highly accurate as it uniquely cross references data from several CDDB sources. The address is Completely Digital Labs Ltd., 170 Brook Road, Waltham Abbey, Essex EN9 1JH or point your browser at www.cdlabs.co.uk.
Absolute Power

Channa Vithana brings out the big guns, in the imposing forms of the Musical Fidelity's kW Hybrid Line Preamplifier and kW750 Power Amplifier.

This new "ultimate kW range" from Musical Fidelity, judging by the gargantuan dimensions, is clearly competing with the bigger powerhouses from the likes of Krell and Chord Electronics. However, both the kW Preamplifier and kW750 Power Amplifier, dramatically undercut their rivals in price. If not size.

The kW750 Power Amplifier for instance is conservatively rated at a quoted 750W/8ohms and 1.1kW/ohms. In the context of Musical Fidelity's own archive, the new £1,497 combination of kW Preamplifiers, kW750 Power Amplifier and kW Phono Phono stage looks like very good value when you consider they have been developed from the previous 2003 kW Tri-Vista kWPre kW pre-power amplifiers (dubbed the kW Monsters) which cost £22,500 in total. Additionally for the sum of just £247 over the half price point of the original (£22,500) Tri-Vista kW6s, you also get a standalone higher quality version of its inbuilt phono stage.

This new kW series is finished in style reminiscent of the 1922-25 era MF F series. The older F series had finely ribbed details across the top and bottom of the fascia; elaborate expensive-looking heat sinks and beautiful curved black motifs at the sides. The new kW's physical description has a very thick froth silver fascia which is angle-profiled at the top and bottom. The sides feature ribbed heatsink type extrusions which is shared across the complete kW range. All the kWs also feature the glowing feet brought over from the Tri-Vista series where, incredibly, they actually work in volume proportionality - considering the large case sizes to break up the great expanses of metal. With the exception of the kW Power PSU's feet which are always blue, approximately thirty five minutes later they turn from red and amber to a surprisingly easy-on-the-eye soft blue.

All the kW casework is very thick aluminium to the front, sides and back plus thick, solid steel base plate. The new kWs also benefit from flush mounted hex-head fastings to the top plates, which are far superior to the unsightly dome topped ones used in the previous Tri-Vista and Nu-Vista Monster series. Overall build is for high-end very good and solid but not spectacular - in terms of an ultra-luxurious finish or sophisticated design like Chord Electronics for instance. Still, they're far less expensive!

HEAVY METAL

The kW Hybrid Line Preamplifier is huge for a preamp; measuring 483x167x450mm and with a weight of 20.55kg, it resembles a large power amplifier! A massive volume control dominates the centre of the silver aluminium fascia. This Cyclops-like dial features a six segment design at its front face with some nice grooved details and an inlaid circular marker designating position. It is an interesting Art Deco style idea in design terms and it simplifies the two knob approach of the previous kW preamplifier but I would have preferred something proportionally slightly smaller with more machined design tactility apart from the sheer size, to draw me in. For instance, the Tri-Vista kW had three black ring grip details inlaid into each of its knobs while the much cheaper £799 Musical Fidelity X-150 integrated has a nicely designed volume control which is reminiscent of the sublime and esoteric Mark Levinson era Cello Audio laboratory style design. Still the kW volume control rotates with a well-oiled precision which is confidence inspiring. Internally the kW Preamplifier features an Alps K59 volume control and one 6112 emt Vistal valve per channel. Musical Fidelity describes the kW Preamplifier as having incredibly low distortion, low noise and a ridiculous overload margin so that it is impossible for any available line source to overload it under any circumstances. The output stage is quite breathtaking; it is capable of an easy 50 watts RMS continuous. It will, in fact, drive efficient loudspeakers better than many amplifiers.

The output stage has a peak power capacity of about 100 watts, so that any inter-connect cable will present no problem whatsoever.

The £5,999 solid state stereo kW750 Power Amplifier is a two box affair. The main unit measures a substantial 483x167x553mm and weighs 34 kg. It is a beast, and has some finely rib-detailed heat sinks running across its sides, although great care is needed as the shape, bulk and those heat sinks make it a mandatory two-person lift. The front panel has a set of blue protect/supply LEDs for both channels and a blue LED illuminated power on/off button. The rear panel has some very solid looking bi-wirable speaker binding posts, separated left/right inputs and a pair of left/right loop outputs for bi-amping! Below these are left/right PSU inputs and a control PSU input. The kW750 PSU is a separate dedicated power supply for the main unit which measures a relatively smaller 365x167x279mm but weighs 18.4 kg. The separate power supply houses three toroidal transformers, the two larger ones are approximately 1kVA rated for the left and right channels. It features a solitary LED illuminated master power button on its...
REVIEW

Front panel and the rear features corresponding power output sockets to the inputs of the main unit. The left and right power is transferred individually by chunky silver-coloured cables terminated in high-quality Neutrik Powercon NAC3FCB connectors which must be securely, forcibly, twisted and clicked into place (this was not mentioned in the instructions). The central low-level control supply from the smaller transformer uses a standard-looking cable fitted with XLR-type connectors. The IEC main input is a big 16-Amp type with corresponding power cable.

SOUND QUALITY

The Musical Fidelity kW combination of kW Phono, kW Pre and kW Power had great bass dexterity alright, with powerful bass lines and midrange richness which emphasised well-rounded timbre to the saxophone, vocals and percussion. I opted to compare the £8,998 pairing of kW Pre and kW Power to the £6,000 Densen B-250/B-330 using the same Musical Fidelity kW Phono stage. On Elgar’s ‘The Dream Of Gerontius’ the Densens had a wider spatiality to both vocals and instrumentation. There was also more clarity and atmospherics compared to the kW duo. The non-lead vocals had superior definition and timbre while the musical timing was also slightly superior in comparison where dramatic changes in emotional emphasis were more heightened and this led to a more free-flowing presentation compared to the kWs. However in the lead vocals to Elgar, the kW Pre and Power had a deeper timbre to the Densens and in the dramatic crescendos the kW had discernible extra weight, which is clearly down to the kW 750 power amplifier. Additionally the kW duo had better bass extension but the more important bass dexterity was equal to both sets of amplifiers. The Densens had a wider, deeper spatiality to ‘This Must Be The Place I Waited Years To Leave’ by the Pet Shop Boys. There was clearer enunciation of vocal passages and a cohesive whole with superior musical timing where the music was free-flowing and also inclusive of excellent musical separation compared to the kWs. The dynamics were the same compared to the Densens - however away from the bass dexterity and the higher frequencies of the midrange and treble, the kW duo did have better bass extension. The same circumstances applied to the Damned’s ‘Street Of Dreams’ between the Densens and kWs, with the kWs having the edge on bass extension. I swapped round the preamplifiers using the kW Pre and Densen B-330 power and the difference was interesting as the kW pre was smoother and did have some bass extension over the B-250 preamplifier but not as much as with the kW 750 Power. The sound was also a tad warmer but the superb higher resolution, clarity and musical timing of the Densen duo was slightly lessened.

CONCLUSION

There’s no doubting the stunning performance of this threesome; you’ll struggle to find better all round performance from any combination of high end amplification. But obviously, even a combination such as this has its star players, and that is surely the £5,999 kW 750 Power Amplifier. This isn’t just in terms of its prodigious power output but also its driving ability and bass extension, and furthermore the kW 750 will find itself at home with virtually any speaker currently on the market and especially in extremely large listening rooms where people tend to sit much further away from their speakers. I found the £2,999 kW Preamplifier had a superb volume control but was slightly less able than the kW 750. The kW Phono, though expensive, was very enjoyable and delightfully adaptable as I found it agreeably accommodating to some completely different cartridges and when used with other amplifiers. For discrete, elegant beauty look elsewhere - but if you like big, dramatic and bold visual impact then the Musical Fidelity kW series is for you.
Some Digital and some Analogue news. And, don’t forget the upcoming Heathrow Show ..!

Just because we are predominantly an analogue, vinyl based, retailer doesn’t mean we don’t care about digital. We realise that our customers, much as they love their vinyl collections, still need to play digital media occasionally! It’s a pity that SACD never achieved the prominence it ought to have. But then, the choice of music is still very limited. Or, perhaps it’s the other way round. Anyhow, when you get a good recording, SACD can be stunning. You guessed this was leading somewhere, and it is! Musical Fidelity have at last released their new kW Series SACD player. It features MF’s trademark sophisticated choke regulated power supplies, and, unusually, the SACD and CD circuits and their power supplies inside the player are completely separate. Too often, when you buy a really good SACD player you still need to retain your existing expensive CD player to get the best out of the respective media. The MF player gets the absolute best out of both media, it really is one of the only genuine dual purpose machines on the market. Other details include technical specs (signal to noise ratio and jitter) which challenge the resolution of measuring instruments, and the ability to switch between two very high quality output stages, valve and transistor, to keep both camps happy! This is their best digital player yet, and one which will be very hard to surpass (despite what MF say in their regular newsletters - existing owners know what we mean!) - if you are interested, don’t delay in hearing it as I think the limited production run will soon all be allocated. Oh, nearly forgot, the price is a whisker under £4000 - very good value indeed when you see (and hear) what you get for the money.

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

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

Our main business, in case you were wondering, is definitely still analogue! And, we have some exciting news on the turntable front. First, the affordable: Michell Engineering have released a limited edition (it’s all limited editions this month!) turntable, loosely based on the famous Gyrodec. However, the Odyssey looks completely different, with a jet black acrylic base, black chassis, clear lid, and a special black version of the acclaimed Tecnoarm A, finished off with a black version of the HR power supply. It also has nickel silver weights, and a clear acrylic spyder like the Orbe. This special model, which only needs a cartridge to complete it, is not only stunning looking but very competitively priced at £150. But, the most interesting thing is the exclusivity - only 100 pieces are being made. They will almost certainly become collectable. And, sadly, due to copy dates, by the time you read this we suspect there may not be many left, so please phone for current availability.

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

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

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

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

---

tel: 020 7724 7224 fax: 020 7724 4347 email: contact@walrus.co.uk web: www.walrus.co.uk
**MUSICAL FIDELITY KW PHONO**

The 

**VERDICT**

Musical Fidelity describe the kW Phono as having 1dB up to about 16kHz. Internally the kW Phono features Musical Fidelity's favoured choke regulated separated power supply (for more details on chokes see p64 of the October 2005 issue).

Additionally the power supply has a small toroidal transformer and separated power supply PCB. For the phono sections there is a nice set of separated dual mono circuit boards. There is also a high-quality braced phono sockets for stereo output and multiple selector loadings for MM and 100mm/100ohm for MC per channel. Accompanying a turntable ground connector is an IEC mains input. It measures 483x167x486mm and weighs 18.15kg and therefore has to be one of the biggest phono stages ever produced!

Considering the excellent bass extension and dexterity through the kW Phono, it was very close to the transparent combination of Linnis Akiva MC and Linto phono stage - which remains the best I have yet heard in this regard. However with other frequency ranges on both vocal and instrumentation. In some key areas the kW Phono/Akiva combination bettered the Linto/Akiva with deeper timbral resolution which is understandable as the £2,499 kW Phono costs almost two and a half times the price of the £995 Linto phono stage.

However the Linto was still better at the musical timing where the kW was slightly behind. Against a £2,060 Chord Electronics Symphonic phono stage, on the Pet Shop Boys’ ‘This Must Be The Place I Waited Years To Leave’ the Chord Symphonic had a more sophisticated treble quality in relation to the higher frequency demands of the instrumentation and vocals. The kW Phono had superior bass dexterity as the Chord was a little diffuse in this aspect. This also had an impact on the musical timing, where the Chord was slower than the kW Phono.

The kW Phono's wonderful spatiality, resolution and dynamic swings were missing on the Chord and this also relates back to the kW Phonios superior bass dexterity. On the Damned’s 'Street Of Dreams' the Chord's superb high frequency abilities were present with a wonderful sense of control and lack of immediacy (which requires a little patience). The Spanish style guitars in the middle had excellent timbre, but on the kW Phono its superiority was in a higher resolution, energised and enjoyable sound quality. So the kW Phono was superior overall to the lower cost Chord when both were connected into the kW Pre and Power combination, but so it should be at £439 extra!

**REFERENCE SYSTEM**

Origin Live Resolution Turntable/Ultra Speed Control, P/S & Encounter 2 Arm (£3,740), Linn Akiva MC cartridge (£1,800 approx), Linn Linto phono stage (£995 approx), Chord Electronics Symphonic phono stage (£2,060)

**MUSIC**

Elgar/Barbirolli 'The Dream Of Gerontius' 1965

Pet Shop Boys 'Behaviour' 1990

The Damned 'Phantasmagoria' (1985)

**MEASURED PERFORMANCE**

<table>
<thead>
<tr>
<th>Power</th>
<th>770watts</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD/tuner/aux.</td>
<td>3Hz-70kHz</td>
</tr>
<tr>
<td>Frequency response</td>
<td>95dB</td>
</tr>
<tr>
<td>Separation</td>
<td>-118dB</td>
</tr>
<tr>
<td>Noise</td>
<td>0.006%</td>
</tr>
<tr>
<td>Distortion</td>
<td>2.5V</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>4/3mV</td>
</tr>
</tbody>
</table>

For full output this power amp needs no less than 2.5V in, a high figure. A preamp with a gain of around 10 is needed if old tuners or cassette decks, typically 0.3V output, are to be used, but the kW preamp has only 4x, giving a low sensitivity of 0.6V. Modern sources give 0.5V or more, meaning a gain of 5x or thereabouts is still needed. The preamp is wideband ±1dB at 63kHz and low noise. It also swings huge output - I measured 40V out, and there was more to come. Frequency response extended from 3Hz to 70kHz. This is not a direct coupled amp; feeding DC in showed the servos worked to cancel output offset.

The kW750 is very well engineered for its price. A solid state switchable MM/MC phono stage with selectable RIAA or IEC settings. Its response is within 1dB up to about 16kHz. In their inimitable style Musical Fidelity describe the kW Phono as having the Orther 2005 issue). For the kW Phono, it was very close to the transparent combination of Linnis Akiva MC and Linto phono stage - which remains the best I have yet heard in this regard. However with other frequency ranges on both vocal and instrumentation. In some key areas the kW Phono/Akiva combination bettered the Linto/Akiva with deeper timbral resolution which is understandable as the £2,499 kW Phono costs almost two and a half times the price of the £995 Linto phono stage. Against a £2,060 Chord Electronics Symphonic phono stage, on the Pet Shop Boys’ ‘This Must Be The Place I Waited Years To Leave’ the Chord Symphonic had a more sophisticated treble quality in relation to the higher frequency demands of the instrumentation and vocals. The kW Phono had superior bass dexterity as the Chord was a little diffuse in this aspect. This also had an impact on the musical timing, where the Chord was slower than the kW Phono.

The kW Phono's wonderful spatiality, resolution and dynamic swings were missing on the Chord and this also relates back to the kW Phonios superior bass dexterity. On the Damned’s 'Street Of Dreams' the Chord's superb high frequency abilities were present with a wonderful sense of control and lack of immediacy (which requires a little patience). The Spanish style guitars in the middle had excellent timbre, but on the kW Phono its superiority was in a higher resolution, energised and enjoyable sound quality. So the kW Phono was superior overall to the lower cost Chord when both were connected into the kW Pre and Power combination, but so it should be at £439 extra!

**REFE
Esoteric:
serious hi-fi for the initiated

Born of an obsession with perfect reproduction of the finest detail, these components are precision instruments, finely engineered and beautifully designed.

This range of components is, quite simply, peerless. Listen once and you'll remember it for ever.
Channa Vithana lines up four integrated amplifiers from Sugden, Marantz, Lyngdorf and Eastern Electric - running Class A transistor, Class AB transistor, Class D transistor and Class A tube operation respectively. He finds four quite different sounding bits of kit, two extremely distinctive designs and one transistor amplifier that’s almost more valve-like than the valve amplifier. Oh for the quiet life!
GROUP TEST

CLASS A TRANSISTOR: SUGDEN A21a £949

The Sugden A21a integrated amplifier is one of the longest running hi-fi products ever. Sugden Audio states that the original A21 was first introduced in late 1967. It followed what Sugden claim is the first commercially available Class A transistor amplifier in the UK, which was their A41 power amplifier. The A21 was originally a 10W per channel integrated. It went through changes to become the A21 mkII in 1973 as a high bias class AB amplifier and ceased production in 1976.

In 1987, the electrical engineer and designer Jan de Jong (who is fanatical about Class A) teamed up with Sugden’s Tony Miller and designed a new A21a. They decided on 25W per channel which was “sufficient to project a large enough soundstage to fill a reasonable living room, but not a level (of W/Channel) to take us too far up the exponential curve of cost/hear problems”.

Sugden says it prefers Class A design because, with Class B, “there is a complicated pattern of distortion which even though it may measure much better than Class A makes the sound thinner and slightly brighter. The even harmonic distortions developed by a Class A amp are more musical and less intrusive to the musical performance. Class A offers the opportunity of the least complicated circuit designs and we believe simplicity in circuit path is rewarded by pure musicality.”

The new A21a was released in 1989 and featured dual mono power amplifiers “operating from separate windings of a single transformer”. The output devices were the “lately multi-emitter bipolar devices with low internal resistance, high gain and speed characteristics.” The gain stages from line input to the input of the power amplifiers “were changed to cascade configuration employing high speed transistors.” This was to prevent phase shift and to minimise current feedback and increased the bandwidth performance. Sugden stated that the changes made to the new A21a “demonstrated the potential of the original circuit”...

Now in the summer of 2005, we have the latest version of the A21a which features a different, higher-quality power transformer. The previous 1989 A21a had a quoted power output of 25W/8ohms but only 10W/4ohms. Sugden says that they have “reduced the voltage slightly and increased the current available. This has been carried out on the same transformer core and the windings have been increased in gauge and wound with closer tolerance. The overall effect has been to reduce the rail voltage but given us the opportunity to increase the constant mean current. A slight reduction in output power into eight Ohms has been compensated for by an increase in power into lower impedances. This has had the effect of stiffening the power availability and improved the amplifiers performance into lower impedance loads”.

As such, the latest A21a features a quoted power output of 20W/8ohms and 20W/4ohms. (see MEASURED PERFORMANCE) which should suit a wider variety of the more modern 4ohm speakers. Otherwise the A21a remains the same and is a compact and extremely well-made amplifier. The volume control is said to be a ‘standard’ Alps Japan type and there are two 10000 micro-Farad capacitors to the low impedance power supply and one output capacitor of the same value for the single voltage rail.

There are four line inputs, one optional phono (£100 extra) plus turntable ground, one tape, one pre out and speaker binding posts. The Sugden features a steel base plate, aluminium top, extra thick aluminium faceplate in either gunmetal silver or black and aluminium heatsinks. Build quality is excellent; being extremely solid. The front controls work with well-oiled precision and while no classical beauty, just like the Lyngdorf SDAI 1275, the Sugden with its attractive heatsinks has a sober business-like look that exudes fine craftsmanship the more one looks at it. The only thing I would change is the rather prosaic lettering style and have the Sugden logo deeply engraved instead of printed on the front panel! The A21a measures 80x430x350mm and weighs 8.1kg.

SOUND QUALITY

For practical purposes, I had the Sugden on for about an hour to get properly ‘warmed’ up and then switched it off after the listening sessions as it gets very hot in use. Playing the very quiet but high-quality recording of "Trio For Violin, Horn And Piano" by Eggen, the Sugden was intriguing. The sound was neutral yet very high resolution also. The horn playing of Marie-Luise Neunecker was nimble and had no distorted flaring-out quality whatsoever. Plucking of the strings was handled with an enjoyably elastic delicacy. The violins were beautifully reproduced just like the Minimax – where they had excellent timbre going from their lower treble to delicate near silent ultra high treble. The piano was also totally convincing with good impact as the keys were struck embodying tension and timbre.

Fleetwood Mac’s ‘Dreams’ had a deeper more widescreen musical whole. It was well balanced and had superb musical timing. The vocals were stunning - well-rounded texturally and expressive. On ‘Never Going Back Again’ the acoustic guitar playing was wonderful with tangible plucking and strumming – it was elastically enjoyable. Lindsey Buckingham’s vocals were very good but the Minimax had slightly better overall sophistication with a deeper and more complicated texture. Still the Sugden was always in control, never once hinting at stridency. It also had

www.hi-fiworld.co.uk
"it has a radiant sound which is dripping with resolution..."

wonderful rhythmical thrust to 'Don't Stop' with excellent musical timing. Instrumental timbre was especially good - where the rolling piano melody was most enjoyable as was the guitar solo, which was animated. Vocals once again were slightly bettered by the Minimax where the Sugden had a small but discernibly lighter presentation in comparison regarding the different vocal styles.

On Steve Steven's 'Flamenco A Go Go', the Sugden revelled in the complex acoustic guitar stew. The sound was histrion and radiantly engaging. The Sugden's strengths were in instrumental timbre and rhythmical drive which came through magnificently, expressing beautiful tonality to the flamenco guitars and energetic bass lines. Bass extension was not as deep as the Minimax but more importantly (for me at least) the more complex nature of bass dexterity (tunefulness) over mere extension was truly excellent with the Sugden. On the atmospheric 'Our Man In Istanbul' the Sugden was able to utilise its excellent bass dexterity and midband to provide stunning timbre was also first-rate where it excelled in this group. Instrumental timbre was also first-rate as the Sugden exhausted vast amounts of feel, texture and sophisticated musical notes from the instruments in all the recordings used, without exception. It has a radiant sound which is dripping with resolution.

The Sugden didn't quite match some of the other amplifiers on vocal ability but this wasn't particularly noticeable in isolation as the sound quality as a whole was well balanced, nimble and highly enjoyable without any discernible subjectively coloured tonal frequencies. The build quality of the A21A is excellent, as the casework is well screwed together in a compact solidly made professional manner. The control and volume knobs move with a solid assurance and if it matters to you, the Sugden does not come with a remote control. Another consideration is finding a suitably sensitive speaker for really high volumes in a very large listening room. All this aside, this is a truly special amplifier – one of the greatest music makers at any price – and a seminal audiophile bargain.

CONCLUSION

Tony Miller said that some reviewers of Sugdens commented on their warmth and valve like sound. He doesn't agree, with the use of the term "warmth". And as such I wholeheartedly concur, as the latest Sugden A21A is a superb amplifier and especially good in its driving and musical timing abilities where it excelled in this group. Instrumental timbre was also first-rate as the Sugden exhausted vast amounts of feel, texture and sophisticated musical notes from the instruments in all the recordings used, without exception. It has a radiant sound which is dripping with resolution.

The Sugden didn't quite match some of the other amplifiers on vocal ability but this wasn't particularly noticeable in isolation as the sound quality as a whole was well balanced, nimble and highly enjoyable without any discernible subjectively coloured tonal frequencies. The build quality of the A21A is excellent, as the casework is well screwed together in a compact solidly made professional manner. The control and volume knobs move with a solid assurance and if it matters to you, the Sugden does not come with a remote control. Another consideration is finding a suitably sensitive speaker for really high volumes in a very large listening room. All this aside, this is a truly special amplifier – one of the greatest music makers at any price – and a seminal audiophile bargain.

MEASURED PERFORMANCE

The A21A clearly illustrates the drawbacks of running a solid-state amplifier in pure Class A. The heatsinks get very hot and the case runs warm, yet it produces just 15W, into 8ohms or 4ohms. This sort of power level is acceptable with large, efficient floorstanding loudspeakers of 90dB/W, but far less so with any form of compact design. Loudspeaker matching becomes a crucial issue.

It may be worth the hassle though as here is another amplifier with totally stable distortion characteristics, and the distortion it produces is innocuous second harmonic, as our analysis shows. This holds at all power levels and frequencies, a good sign suggesting a totally clean, easy sound. The overload characteristics suggest feedback is not high.

Unlike most of today's amps, this one has enormous input sensitivity, so it can be partnered with just about anything. Input noise seems high, but this is because there's so much gain. A phonostage caters for MM cartridges, offering a useful 2.5mV sensitivity, sufficient for good quality types. Overload was high, and equivalent input noise low at 0.47uV (IEC A wtd.), which is at the low end of the usual range, so the working range of this input is good. Sugden fit a warp filter that cuts...
Every loudspeaker manufacturer has its flagship range, but not many have achieved the levels of acclaim reserved for Acoustic Energy's Reference Series, long-since regarded as one of the best high-end loudspeaker ranges available today. To find out why, contact us.

email: info@acoustic-energy.co.uk  tel: 01285 654432
www.acoustic-energy.co.uk
The new Marantz PM-15S1 is a lower-cost development of the high-end, £2,500 PM-11S1, and a replacement to the beautifully finished and designed PM17 series (visually my favourite Marantz design). The PM-15S1 does have some of the technologies used in the PM-11S1 such as new HDAM-SA2s and very similar styling — which means superbly done casework, flawlessly designed and excellent build quality in the usual super-slick Marantz manner. It has a great build quality in the usual super-slick Marantz manner. It has a speed sensitive power output stage of -1259V/4ohms and 120W/8ohms in stereo, 180W/8ohms in stereo and weighs 12kg for £1,100 new.

Internally, the PM-15S1 features a new evolved transformer for the power supply. The special power transformer is moulded to produce less vibration and heat, whilst the Marantz transformer design transformation reduction is achieved by using special ferrite materials. There is also a LC ripple filter in the power supply power circuit which is achieved by cutting out rectifier noise generated by the rectifier circuit, as well.

As external high-frequency noise, the Marantz uses current feedback in its design, saying this "allows the amp to reach a much higher frequency range (up to 10kHz). Operating in a range from 0dB to 100dB, the PM-15S1 uses a speed sensitive electronic linear volume control, model - WMB816 from Wolfson which allows adjustment in steps of 0.5dB (and both channels are absolutely parallel). An MM/MC phonostage is employed which "inherits" the Current Feedback Phono Equaliser used in the PM-11S1 for which Marantz's elegant model costs £1,000 as a standalone unit. [Maybe a slight exaggeration but that phonostage does sound extremely good indeed — Ed.]

Extensively the Marantz uses an LC multifunction display for volume, speaker on/off or headphone outputs and input source. The display is centrally located and is switchable from a display in the upper left which also operates the blue illumination. There are a series of highly visible buttons which are located on the left side of the central display. The left speaker button (to attend to left speaker tone) with four small switch points to select the power source 1, 2, 3, or 4 (with different tone settings) and volume adjustment. The power of this speaker is a little less than the Marantz had a noticeably slower than the other amplifiers. The Marantz had a slightly sweet sound which was also less keen to portray its full-bodied sound with the bass lines in particular being elastic and multilayered. The different vocal styles were handled with a smooth, lush and enveloping manner, though the Marantz was less keen to portray the very different vocal identities as say the Minimax which was excellent in this regard.

With Steve Steven's 'Flamenco A Go Go' the Marantz showcased its hidden talent and depths for on the high-piece was also slightly slower than the other amplifiers which were more three-dimensional than the Minimax, Lyngdorf or Sugden. Instead the Marantz followed its own musical path with a slight sweetness to the higher frequencies.

On 'Never Going Back Again' the sound filled out with a full-bodied presentation. Lindsey Buckingham's vocals were interesting, as they were more three-dimensional than the Minimax, Lyngdorf or Sugden. On 'Don't Stop' the Marantz had its full-bodied sound with the bass lines in particular being elastic and multilayered. The different vocal styles were handled with a smooth, lush and enveloping manner, though the Marantz was less keen to portray the very different vocal identities as say the Minimax which was excellent in this regard.

With Steve Steven's 'Flamenco A Go Go' the Marantz showcased its hidden talent and depths for...
GROUP TEST

CONNECTIVITY
This new PM-15S1 is adaptable and upgradeable, with five different connection options. Option one is to use the PM-15S1 as standard on its own in normal two channel mode. Option two, is the ability to link three PM-15S1s together using the FCBS (Floating Control Bus System) in/out socket at the rear panel. This enables full 5.1 multichannel capability from a SACD/DVD player - where one PM-15S1 powers the front speakers, the next does the signal to active subwoofer and centre channel speaker while the third handles the rear surround speakers. Option three, entails two PM-15S1s that can operate in bi-amp mode providing separate amplified channels to a bi-wire/bi-amp capable speaker. Option four entails four PM-15S1s... The FCBS works by designating an ID to each PM-15S1 used and thus ID1 would be the master which controls the input source, volume, ATT (attenuation), display and tone on/off for up to three slave PM-15S1s designated ID2, ID3 and ID4. Option five is similar to option two for 5.1 multichannel audio except you can designate the high-end £2,500 PM-11S1 as the master for improved front channel performance and the two slave PM-15S1s can be switched off to provide the superior stereo performance of the PM-11S1 when no multichannel is required!


MEASUREMENT PERFORMANCE

A subtle but interesting feature of this amplifier was a higher than usual low frequency response limit of 10Hz, with a small amount of lift (+0.5dB) extending up to 100Hz. Whether this is caused by a low frequency filter alone or to behaviour of DC servo-circuits I cannot test, but it does suggest Marantz have carefully but deliberately tailored the PM-15S1 to sound fast but at the same time weighty in its bass delivery. It's likely to sound less dry and a bit more forthcoming than competitors in its bass as a result - not a bad thing. Plenty of power is available, measurement recording 112W into 8ohms and 102W into 4ohms, enough for most purposes. Although distortion levels were low at 0.004% in the midband, rising to 0.026% at 10kHz, they are by no means definitively low. However, this may well be down to other factors, such as limited use of feedback. The harmonic spectrum is unusual in possessing a smooth decay, with second harmonic dominant. Most of today's amps produce 3rd order. Both MM and MC disc stages have extended low frequency gain, response reaching down to 12Hz (-1dB). The upper limits varied, but were satisfactory. Noise was low in the MM stage, but not MC, which is best restricted to high output types. The PM-15S1 is subtly different to others. It will have some distinctive sonic properties. NK

**CONCLUSION**

The best all rounder in the group, the Marantz PM-15S1 touches all the bases for those looking for a top quality, do-it-all high end integrated. It's a superbly crafted slice of high-end multichannel audio, beautifully made with a super-slick assembly and functionality. The controls work with peerless precision and are laid out elegantly. The aluminium fronted remote control is also exquisite. Electronically it has also been thoughtfully and laterally designed - where it can form a number of different combinations with one or more extra PM-15S1s (and even the high-end £2,500 PM-11S1) for bi-amping or multichannel audio - which is a clever upgrade path. It sounds consistently smooth, with a more revealing transient and prodigious dynamic ability; a great all rounder.

**MEASURED PERFORMANCE**

<table>
<thead>
<tr>
<th>Power</th>
<th>112 watts</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD/tuner/aux</td>
<td></td>
</tr>
<tr>
<td>Frequency response</td>
<td>10Hz-150kHz</td>
</tr>
<tr>
<td>Separation</td>
<td>95dB</td>
</tr>
<tr>
<td>Noise</td>
<td>-93dB</td>
</tr>
<tr>
<td>Distortion</td>
<td>0.01%</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>280mV</td>
</tr>
<tr>
<td>dc offset</td>
<td>108mV</td>
</tr>
<tr>
<td>Disc MM</td>
<td></td>
</tr>
<tr>
<td>Frequency response</td>
<td>12Hz-23kHz</td>
</tr>
<tr>
<td>Separation</td>
<td>82dB</td>
</tr>
<tr>
<td>Noise</td>
<td>-84dB</td>
</tr>
<tr>
<td>Distortion</td>
<td>0.006%</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>3.6mV</td>
</tr>
<tr>
<td>Overload</td>
<td>160mV</td>
</tr>
<tr>
<td>Disc MC</td>
<td></td>
</tr>
<tr>
<td>Frequency response</td>
<td>12Hz-120kHz</td>
</tr>
<tr>
<td>Separation</td>
<td>74dB</td>
</tr>
<tr>
<td>Noise</td>
<td>-70dB</td>
</tr>
<tr>
<td>Distortion</td>
<td>0.006%</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>0.37mV</td>
</tr>
<tr>
<td>Overload</td>
<td>15mV</td>
</tr>
</tbody>
</table>
SWITCH-MODE SEMI-DIGITAL:
LYNGDORF AUDIO SDAI 1275 £1,095

Formerly TacT, Danish brand Lyngdorf Audio's SDAI 1275 is a fully balanced, remote controlled, switch-mode integrated amplifier which has no relays or fuses in its signal path. It measures 450x361x100.6mm and weighs 15.5kg. SDA is an abbreviation for Semi Digital Amplifier which designates it separately from Lyngdorf Audio's higher-cost True Digital Amplifiers (TDA). Lyngdorf say that "the SDAI 2175 is a less complex design (than TDA) which relies on analogue inputs to generate the digital switching at the output. The output stage operates by pulse-width-modulation (PWM) at a very high switching rate and constant voltage. This is similar to the operating principle of the (high-end) TacT Millennium (TDA), but while the Millennium converts the digital information directly from the digital source, the SDAI 2175 utilizes analogue inputs to generate PWM switching at the output".

Lyngdorf use PWM because they claim that the "SDAI 2175 generates 75% less heat than a Class AB amplifier of similar power. Heat is the greatest contributor to component ageing, Capacitors in particular are prone to heat damage over time." The quoted specification for the SDAI 1275 is impressive - when compared with those from similarly priced hi-fi integrated amplifiers - with a power output of 220W/8ohms and 375W/4ohms. The company says that the SDAI 1275 uses a digitally controlled analogue attenuator, and the volume is controlled with 0.1 dB steps (over a 100dB range). Instrument grade dual gold relays are used for input switching that Lyngdorf claims are normally only used in expensive measurement equipment "for high linearity and low losses".

The Lyngdorf can also adjust the attenuation to each input by 6dB to optimize signal to noise ratio. The seven inputs (one is XLR balanced) can be individually adjusted in 0.1 dB steps, while the display is programmable to name the input. The transformer is a 650VA Toroid-Holmgren design for which Lyngdorf state that it "is particularly resistant to mechanical shocks. Internally it uses capacitors for its power supply, regulation rated at over 40,000 micro-Farads and a separate board for the IEC mains input with mains filtering. Further SDAI 1275 features include, two preamp outputs (one balanced), individual balance adjustment for each input with 0.1 dB steps, channel balance +/- -0.05 dB "at any level down to -80 dB", 3.5mm jack connector trigger output for control over additional SDA 2175 power amplifiers and RS 232 connections for software modifications. Build quality at reducing magnetic Interference which can detrimentally affect sound quality. Overall the visual design of the Lyngdorf is unpretentious yet discerning and discreetly attractive, which is what I prefer as it gives long term owner satisfaction.

SOUND QUALITY
On Ligeti's 'Trio For Violin, Horn And Piano' the Lyngdorf was fascinating, as it was able to illuminate deep into the rather quiet but dynamically superb recorded musical structure with an uncommon ability compared to the other amplifiers on test. The whole of the Ligeti piece was opened out with great insight and with stunning musical timing, again the best of the group, outdoing the superb Sugden. The musical separation was just effortless for an amplifier of this price and the tonality was excellent with an extremely accomplished timbre - where it was also completely in time with the rest of the musical structure. The violins had a very pleasing timbre with wonderful extension and expression. The violin phrasing was particularly good. The Lyngdorf handled the first crescendo very well with an unnerving sense of control.

The Lyngdorf had a completely neutral presentation in comparison with the other amplifiers on test when listening to 'Dreams' by Fleetwood Mac. The musical timing - considering the gelling together of the different vocal and instrumental strands as a cohesive musical structure, to form a well-defined musical separation - was simply first-rate. The musical separation was just effortless for an amplifier of this price and the tonality was excellent with an extremely accomplished timbre - where it was also completely in time with the rest of the musical structure. The violins had a very pleasing timbre with wonderful extension and expression. The violin phrasing was particularly good. The Lyngdorf handled the first crescendo very well with an unnerving sense of control.

The Lyngdorf had a completely neutral presentation in comparison with the other amplifiers on test when listening to 'Dreams' by Fleetwood Mac. The musical timing - considering the gelling together of the different vocal and instrumental strands as a cohesive musical structure, to form a well-defined musical separation - was simply first-rate. The Lyngdorf displayed excellent bass dexterity and was very good with the vocals, where there was no sense of discernible strain or high frequency stridency in the female vocal. On 'Never Going Back Again' the Lyngdorf was able to reproduce
Have you been missing something?

The original 8000 series from Audiolab started something of a revolution in value and performance. When they disappeared from the market, the hi-fi world lost a well-loved and reliable friend.

Now, the new 8000 series marks a strong return to the original brand values and philosophy. These famous products have been re-engineered to create a complete two channel range, including the famous 8000S, 8000Q, 8000M and 8000P models as well as an all new CD player.

7.1 channel pre and power amplifiers have been added to create a series of building blocks capable of meeting your system needs now and for the future.

Audition them now and find out just what you’ve been missing.

The new 8000 series offers a definitive and genuine hi-fidelity performance from a no-nonsense approach to engineering.
"like the Sugden, it's a genuinely special sounding amplifier, although for quite different reasons!"

A wonderful vocal from Lindsey Buckingham. There was a really nice delicacy and multilayered sophistication, and it seemed eerily in the room.

Guitar timbre and expression, while not as three-dimensional as the Sugden, was still extremely precise in its ability to slice through the air. This reproduction of the guitar and vocals also reinforced the Lyngdorf's excellent musical timing ability as it was inherently cohesive to the songs structure. On 'Don't Stop' the whole musical structure was beautifully revealed and had the Lyngdorf's exacting musical timing intact where every vocal, element, strand and instrumental intonation was superbly executed and free flowing. Individual aspects such as vocals were excellent, while the instrumental timbre had good definition. Bass was dextrous and also well defined while the treble was able to open out the music into a widescreen dimension.

Steve Steven's 'Flamenco A Go Go' was thrilling; all the elements gelled to produce stunning musical timing. Bass was again excellent, which gave a lift to the lower mid while not being unnaturally extended as to dislocate itself from the rest of the music. This upper bass/lower midrange frequency quality helped to provide rhythmic thrust and enjoyment through Steve Steven's rocket-ship rush of acoustic guitar melodies. On 'Our Man in Istanbul' there was the recurring talent of the Lyngdorf in enabling stunning instrumental and vocal separation. The gorgeously sexy vocal from Azam Ali was especially good with the Lyngdorf's separation ability as there was a sense of openness not available on the other amplifiers, where her voice was deliciously free-flowing and super-clear without a single hint of high-frequency glare or harshness. The Lyngdorf's musical timing abilities also took the complexities of "Our Man in Istanbul" in its stride — making for a neutral yet thrilling ride.

CONCLUSION

Like the Sugden, this is a genuinely virtual and special sounding amplifier, although for quite different reasons! It's initially underwhelming, but due to its massive power output it was able to provide an excellent grip and drive to the differing demands of all the music used. It has an eerie sense of control and superlative musical timing that never stifled its tonal resolving ability. As such it was very special with completeness in the most important aspects of the musical structure - such as outstanding instrumental and vocal separation which was surgically unretouched but never clinical. The Lyngdorf is not a sugary sounding device (unlike the Marantz, for example), although it remained resolutely musical in a neutral, unflappable and dynamic manner. Build quality is equally brilliant for the asking price while the visual design is my favourite of the group as it expresses a honed-down discretion that can only come from first-class craftsmanship. In some respects, this product sounds like 'superfluous refinement, subtlety, unflappability and sheer control are remarkable, and many will instantly

MEASURED PERFORMANCE

The distortion behaviour of this amp is influenced by its tightly limited bandwidth. Harmonics of higher frequencies are curtailed, meaning past 6kHz or so distortion starts to go down, not up. At 6kHz though, where second and third harmonics fall within the bandwidth of the output filters, distortion at low levels of a few watts measured just 0.003% into 8ohms, rising to 0.007% into 4ohms, third harmonic predominating in bridge conditions, as second cancels. Near full output (30V) the worst case result was 0.07%, second and third harmonic, into 4ohms, a low value. In the midband, distortion levels were much the same, so this amplifier is consistent in its behaviour, which means the distortion spectrum is not constantly changing, always a good sign. The SDAI 2175C interestingly possesses a better distortion performance than conventional amplifiers.

This is a bridge amplifier, like most 'digital' switching amps. It has no problem swinging massive output, no less than 220W into 8ohms and 324W into 4ohms, whilst barely getting warm, due to high efficiency. There's 5V d.c. on both output lines, but protection circuits guard against damage from shorts to ground or any differential output offset that would threaten the loudspeaker. It is not d.c. coupled throughout though; tests showed input d.c. did not affect output conditions. Frequency response of digital amps like this is, in theory, input dependent, because of the output filters. However, the SDAI 2175 varied little between 4ohms and 8ohms, looking flatterest on the lower value. The upper -1dB bandwidth limit is 27kHz; the lower limit is 1Hz.

Sensitivity is very low at 1V maximum. I don't understand this, as most sources give 0.5V or thereabouts, so it's far too low; only CD gives more. External phone stages, (true) and such like must give 1V to match this amp - and few do.

This is a heavily engineered amplifier in all senses, more so than usual. It measures extremely well, except for low sensitivity which will make matching difficult. NK

Power 220watts
CD/tuner/aux.
Frequency response 1Hz-27kHz
Separation 88dB
Noise (IEC A) 107dB
Distortion 0.809%
Sensitivity 8/21mV

VERDICT

Lyngdorf Audio
SDAI 1275 £1,095
Lyngdorf Audio
C: +44 (0)8709 100 100
www.lyngdorfaudio.co.uk

For: design and build
- neutral yet engaging
- stunning musical timing
- massive power
Against: takes time to appreciate

GROUP TEST

www.hi-fiworld.co.uk

NOVEMBER 2003 HI-FI WORLD 23
**GROUP TEST**

**CLASS A TUBE: EASTERN ELECTRIC M520 INTEGRATED £1,539**

Eastern Electric is a joint venture between the Hong Kong based designer Alex Yeung and American Bill O'Connell of Morning Star Audio. The Minimax M520 integrated has taken its nomenclature from what Eastern Electric describes as being "inspired by the most famous Mullard 302 circuit". It is rather nicely specified, designed and built - and considering that the M520 is a new remote controlled valve integrated amplifier, it is very good value at £1,539.

The Minimax has three line inputs, one preamplifier input (disabling volume control and enabling upgradability for the M520 to become a power amp) and one tape in/output. The front panel has power on/off, remote control sensor, volume knob and scrolling input and Pentode/Ultra Linear selectors with corresponding LEDs. At the top panel there are a set of switches to adjust negative feedback (NFB) for each channel, which can be set at ‘Min’, ‘0’ or ‘Max’. Eastern Electric say that the adjustable levels of NFB will have a different damping control on your speakers, and that this can determine which level (of NFB) serves your speakers best and will give the best sound and tone. Minimax recommend that the setting for the NFB be the same for both channels. The Minimax has a quoted power output of 24W/8ohms in Pentode and 18W/8ohms using Ultra Linear. The Minimax can switch between the Ultra Linear or Pentode settings at the front panel or under the remote control. The Minimax powers on with Pentode by default, which indicates yellow, while the Ultra Linear is lighted in red at the shared PE/UL LED.

The all aluminium remote is a stylish affair; being solidly hewn and simple to use. It can additionally control inputs direct (without having to scroll), volume up or down is controlled by a motor drive Alps Japan unit and mute (indicated by the flashing of the green LED on the volume knob). The Minimax uses a 110mm transformer which is said to use cores of “top quality imported sheet”. The capacitors used are “MIT foil caps... chosen because they sound real great in our designs”! Point-to-point wiring is used in the audio section for best sounding result, as for the remote control section, circuit board is used.

Eastern Electric describes the valve arrangement (duplicated for each channel) as follows: “The 12au7 (second from front) used as the phase splitter was an obvious choice as there are just too many vintages of this tube that excels in tone and are relatively inexpensive to try different vintages. The E86 (at the front) was chosen for the 1st driver stage, as this tube is not equaled by any for its sheer smooth warm tonal characteristic. (The E86 supplied with the review unit were Sovtek and not Eastern Electric branded like the others). The 5AR4 rectifier is at the rear for each channel brings only what tube rectification can achieve and clearly surpasses any hybrid/solid-state rectifier. The GZ34/5AR4 is the finest rectifier ever made and many current production tubes sound so wonderful that not to use this glorious rectifier is almost a sin. When it comes to members of the 6L6 tube family, there has been none better in tonal qualities (than) the EL34 (two per channel, third from front). Almost every electric guitar amp ever built uses this tube and the reasons are plenty. Tone, Tone, Tone. They just convey the music, punchy yet warm with second order harmonics that the brain relates to as music”.

The Minimax uses two sets of speaker binding posts at the rear, and recommend the 16ohm setting for speakers rated at 8ohms and above while the 8ohm is more suitable for 4ohm speakers. The Minimax can also be individually special-ordered with a 4ohm output. Measuring 412x185x415mm the Minimax is superbly constructed in aluminium and stainless steel with
a very nice finish overall. There are two large bended cylindrical bars on either side which look like handles but considering the 77 kg weight, they look more suitable as barriers minimizing the chance of being burnt on the hot tubes when in use.

SOUND QUALITY

Violins had an authoritative timbre through the occasionally stark but emotionally engrossing 'Trio For Violin, Horn And Piano' by Ligeti. The horn radiated nicely into the room with very good musical timing, where the lower frequency sound of a horn can sometimes be dislocated. And as such this was a pleasant surprise from a valve amplifier. The piano had wonderful tonality which was nicely deep and resonant when the appropriate keys were struck.

I preferred the Minimax in Ultra Linear mode for the Ligeti piece because the horn especially in the more powerful Pentode mode was a little strained in comparison where it was flaring out with a small but discernible subjective distortion. The violins did not have a metallic edge and neither did they portray a softly diffused sound or lush tonality either. Rather the violins were enjoyable, convincingly good with a level of neutrality that gave a balanced emotionally engaging appeal. The languid tempo of Fleetwood Mac's 'Dreams' from the 'Rumours' DVD-A was superb on the Minimax, with a stunningly clear treble emanating from the cymbals which illuminated a wonderful spatial quality to the rest of the musical structure. The tonality to the midrange frequencies for the drums was also really enjoyable — expressing convincing timbre that spread out across and out into the listening room. Bass lines were deep and dextrous while the melodic rhythm guitar parts had crispness adding their contribution noticeably to the musical structure. Stevie Nicks' vocals were brilliant, far reaching and did not have any added 'artificial sweetness' — rather they were just nice, never reaching any stridency within this somewhat treble extended DVD-Audio of 'Rumours'. Lindsey Buckingham's powerful but emotionally vulnerable vocals, like Stevie Nicks before were far reaching and sophisticated in tonal shading and as such were a thing of beauty through the Minimax where they reached delicacy and dynamism on 'Never Going Back Again'.

The acoustic guitar was another delight from 'Flamenco A Go Go' by Steve Stevens, I preferred the Minimax as standard is excellent with the melodic piano parts convincingly portrayed with perfectly reproduced phrasing, musical timing and therefore balance.

On the complex and exhilarating acoustic guitar firestorm from 'Flamenco A Go Go' by Steve Stevens, I preferred the Minimax in Pentode mode where I was enthralled by Steve Steven's amazing acoustic guitar pyrotechnics as he phrasing, and pureness sheen was simply intoxicating. The Minimax coped well with the multilayered composition producing an enveloping musical scope. The midrange frequencies of the guitar was excellent, producing a fatigue-free session where I was allowed to follow precisely Steve Steven's frenzied yet very tunefully melodic playing. The eastern flavoured 'Our Man In Istanbul' was another delight with some brilliantly spacious layered vocals from the Iranian born Azam Ali. Her vocals were spread across the speakers and into the room convincingly. The different guitars used were also a delight as they expanded the harmonic structure of 'Our Man In Istanbul' brilliantly working the cinematic feel of the song.

CONCLUSION

I really enjoyed Eastern Electric's Minimax M520. It did not produce a rose-tinted 'warm', 'liquid' or 'lush' sound yet it was not clinical either. Rather as standard it was a generally well-balanced amplifier. The remote-controllable Pentode/Ultra Linear mode is especially useful as I used it as a tone control for the different recordings used. The Minimax was also especially good at all the differing vocals I encountered in the listening sessions; where it reproduced multilayered, texturally sophisticated singing parts which were excellent. Build quality was excellent, as was the design (two different things) and as a whole with its future valve upgradeability for the eternal tweak, I believe the Minimax as standard is excellent value for an integrated valve amplifier of its construction and abilities.

CONCLUSION

It did not produce a rose-tinted 'warm', 'liquid' or 'lush' sound yet it was not clinical either. Rather as standard it was a generally well-balanced amplifier. The remote-controllable Pentode/Ultra Linear mode is especially useful as I used it as a tone control for the different recordings used. The Minimax was also especially good at all the differing vocals I encountered in the listening sessions; where it reproduced multilayered, texturally sophisticated singing parts which were excellent. Build quality was excellent, as was the design (two different things) and as a whole with its future valve upgradeability for the eternal tweak, I believe the Minimax as standard is excellent value for an integrated valve amplifier of its construction and abilities.
As the EISA jury explained: "The New PM-15S1 proves Marantz is still a serious force in audiophile two-channel music equipment. Luxury touches include a shimmering solid-aluminium fascia. Advanced technology includes an accurate electronic volume control. And thanks to a unique four-way stacking option, with central channel steering, the PM-15S1 is ready and willing to lend its natural, powerful sound to movies as well as music. It completely justifies its membership of the high class Premium component range."

The Premium Series is exclusively available through the following authorised dealers:

Cambridgeshire
Audiovision, St Neots: 01480 471202
Cheshire
Sound of Music, Crewe: 01270 214143
Cumbria
Peter Tyson, Carlisle: 01228 546756
Derbyshire
Superfi, Derby: 01332 360303
East Sussex
Adams & Jarrett, St. Leonards-on-Sea: 01424 437165
Guernsey
Teleskill AV Ltd: 01481 722323
Hampshire
Sevenoaks Sound & Vision, Southampton: 02380 337770
Humberside
Manders Hi-Fi, Grimsby: 01472 351391
Sevenoaks Sound & Vision, Hull: 01482 587171
Kent
Canterbury Hi-Fi, Canterbury: 01227 765315
Leicestershire
Leicester Hi-Fi, Leicester: 0116 253 9753
London
Sevenoaks Sound & Vision, Holborn: 020 7837 7540
Manchester
Practical Hi-Fi, Manchester: 0161 839 8869
Middlesex
Harrow Audio, Harrow: 020 8930 9933
Northamptonshire
AV Land, Wellingborough: 01933 442222
Classic Hi-Fi, Kettering: 01536 310855
Scotland
Sevenoaks Sound & Vision, Glasgow: 0141 332 9655
Surrey
Sevenoaks Sound & Vision, Epsom: 01372 720720
Unilet Sound & Vision, New Malden: 020 8942 9567
Tyne and Wear
Global Hi-Fi, Newcastle: 0191 230 3600
Yorkshire
Vickers Hi-Fi, York: 01904 629659

www.marantz.com | Marantz 01753 680868
Conclusion

These four amplifiers were all different, yet all are very capable performers and as such this should be celebrated. Both the lower powered Sugden and Minimax designs had no trouble driving the ribbon tweetered Aurum Cantus Leisure 3SE speakers to what I consider very loud levels in my 6.5x4.5m listening room. When Noel Keywood measured them he said, “sensitivity was low at 82dB but this wasn’t surprising as the ‘speakers’ impedance is very high, measuring 12ohms overall. It (the Aurum Cantus) is a very light load, even for a valve amp. But does need ‘power’ (volts) to go loud”.

When correctly load matched, the Class A transistor Sugden A21a had useful power and ably gripped the speakers to produce the best instrumental timbre of the whole group. Additionally it had excellent resolution which was interesting, allied to a generally neutral but engaging sound quality that I really enjoyed. The Sugden’s sound quality can be described as very linear, tightly organised yet soulful which makes it a bit of a chimera in an amplifier! It does run hot though, and thus I would treat it as a valve amplifier allowing between thirty to sixty minutes ‘warm’ up before use and then switching off afterwards. The Sugden did not have the best bass extension, but the more complex and important bass frequency was nicely aligned to the rest of the higher frequencies to produce its linear but tuneful sound.

It didn’t always have the best vocal timbre but because it was so well balanced and musically well-timed in isolation this is not noticeable. The Sugden is especially well-built but not flashy in appearance and though it didn’t have a remote control, this was not an issue for me. I loved it because it’s such a simple, unconstructed, unalloyed music maker.

The switch-mode Semi Digital Lyngdorf SDA 1275 was also really accomplished, and pure joy to use and listen to. It has an unflappably neutral sound quality that was always in control of the demanding frequency extremes from the different music used. This neutrality also meant that the Lyngdorf is not smooth, lush or sweet and that is a good thing as this ability is important for preserving the individuality of the music used. And for listeners who enjoy a wide, dynamic and manifold selection of music this will be a prescient quality. The Lyngdorf’s neutrality does not mean it sounds cold, clinical or even grey as some perceptions and realities of digital amplifiers have been in the past – far from it! Additionally the Lyngorf had a very cohesive sound with superlative musical timing which was a real pleasure to listen to as could concentrate through particularly dense recordings such as Steve Stevens’ ‘Flamenco A Go Go’ where the Lyngdorf had a real flair for both vocal and instrumental separation. It is beautifully constructed in a high-end high-quality manner and visually, for me at least, offered a discrete self-confident visage. This for me is the second star of the group, self-effacingly musical, subtle yet exhaustively thorough in the way it conveys what’s going on in a performance, with an amazing sense of imperceptibility.

The Class A valve Minimax M520 excelled in all the vocal timbres experienced through the different recordings used in the test. It has a good ability with instrumental timbre also and I was surprised at its musical timing ability which was rather good. The build quality and design were excellent and commendable for the asking price without even a hint of hair shirt or ‘rugged/agricultural’ construction. The Minimax has a superbly crafted remote and remotely-controlled tonal flexibility with its Pentode or Ultra Linear modes which were very useful – as they were not superfluous gimmickry because of the demands of the different music used necessitated adjustment.

The Marantz was a surprise as a Class AB amplifier; it was the most tonally characterful amplifier in the group! It was intriguing because it has a wonderful full-bodied nature to the recordings used and some very nice vocal timbre was also revealed. “like the difference between the Beatles and Beethoven, that’s what happens when you go from Class A to D…”

It initially sounded more diffuse than the others and a little underwhelming but given some patience the Marantz rewarded the listener with some stunningly powerful dynamic swings that could really grip a crescendo or tempo swing. The Marantz was never flustered though and always remained in control. The Marantz is super slick in construction with remote control and an excellent lateral-thinking upgrade path using more PM-1SSTs (or even a high-end PM-11S-1) enabling it to be bi-amped or go into 5.1 multichannel if desired! For these reasons, it’s by far the best all rounder in the group, with a uniformly high standard in every department from phono stage to remote – but it’s less focused on sonics.

Overall then – as you’ve probably surmised – standards were extremely high, but we’d give the gongs to the Sugden and Lyngdorf for being brilliant music makers. The amazing thing is that they sound so different - like the difference between the Beatles and Beethoven. That’s what happens when you go from Class A to D!

REFERENCE SYSTEM:
Onkyo DV-SP1000E Universal Player (£2,800)
Aurum Cantus Leisure 3SE Speakers (£1,250)

MUSIC:
Fleetwood Mac ‘Rumours’ (1977/2001) DVD-Audio
Steve Stevens ‘Flamenco A Go Go’ (2001) DVD-Audio
SEVENOAKS
SOUND & VISION

With over 30 years experience, SEVENOAKS SOUND & VISION is one of the largest and most respected AudioVisual retailers in the country.

Each Sevenoaks Sound & Vision store stocks a wide range of quality products, covering all categories of specialist home entertainment, from Hi-Fi separates and systems to DVD recorders, widescreen plasma televisions and projection systems.

Our fully trained installation experts can neatly and seamlessly integrate a home cinema or hi-fi system into your home. All electronics can be hidden away, speakers discreetly mounted either in the wall or ceiling and the complete system operated via remote control.

Whatever your requirements, Sevenoaks Sound & Vision has a diverse range of products and the expertise to advise, demonstrate and guide you through the home entertainment jungle.

NEWS

NEW STORES

We are pleased to announce that new stores will be opening shortly in the following locations - SUBJECT TO LEGAL COMPLETION.

- YEOVIL
- LOUGHTON

HOMEBUILDING & RENOVATING SHOW

ExCeL London • Smart Home Zone
30th September - 2nd October 2005

Sevenoaks Sound & Vision will be exhibiting together with Living Control in the Smart Home Zone at the Homebuilding and Renovating Show at London’s ExCeL. There are 200 exhibitors from around the UK including, experts from the Homebuilding & Renovating Magazine and a free seminar programme, which covers many areas of self-build and renovation.

Specialist hi-fi & home cinema

Contemporary hi-fi is constantly setting new standards in sound reproduction and design. Whatever you listen to, Sevenoaks can recommend separate components that will bring your music collection to life and complement your home. We’re enthusiasts and experts, passionate about helping you build (or upgrade) a system that will delight for years to come.

The recent growth of DVD has led to a huge rise in demand for home cinema equipment - DVD players, AV receivers, projectors and plasma screens but, with so many options, it’s not easy to know which ones will suit your needs. Indeed, in the face of this quickly evolving and often bewildering array of products, we aim to assist you in assembling a home cinema system to be proud of – one that achieves outstanding picture and sound quality.

Audiolab NEW 8000 Series

Audiolab’s new 8000 series offers a definitive and genuine hi-fidelity performance from a nononsense approach to engineering. These famous products have all been re-engineered to create a complete two channel range, including the 8000S, 8000Q, 8000M and 8000P models plus a new CD player. A 7.1 channel pre and power amplifier completes the range.

Project

Project is currently one of the world’s leading suppliers of turntables, with a range of models designed to satisfy all levels of expectation and budget. The range is simple to use, maintenance free and will function for a lifetime.

B&W MINI THEATRE MT-20

“Looks and sounds fantastic - a sensational package.”

B&W

The focus of Bowers and Wilkins Loudspeakers has always been to offer the best possible musical experience, with a combination of the latest R&D techniques and a passion for music, B&W produces a diverse range of products benefitting the largest audio manufacturer in the UK.

Cyrus

If you’ve enjoyed listening to music before, try listening to it through a Cyrus system. With every product tuned by ear, Cyrus represents a quality of sound which is rare at any price. Invest in a Cyrus system and you’ll be rewarded with a wealth of sounds you wouldn’t have thought possible.
Founded in 1938, Quad’s history is one of audio excellence. Today’s range includes both electronics and speaker systems.

Musical Fidelity
Musical Fidelity’s New A3.5 Series amplifier, using circuitry closely related to AS’s, and upsampling CD player combine high-end performance, visuals and finish at a competitive price.

KEF
Replacing the highly successful O Series, KEF’s New IQ line-up comprises eight models from the entry-level IQ1 bookshelf to the impressive IQ9 floorstander. All models incorporate KEF’s Uni-Q driver technology and are available in a variety of finishes. Other KEF ranges include X, KHT and the Award-winning KHT100 Home cinema system.

Arcam
Arcam has spent more than a generation building some of the finest high-fidelity products the world has ever seen. Whether you’re interested in two-channel or a complete multi-channel AV system, the Arcam DIVA series offers the music and movie lover the most complete range of high-performance home entertainment solutions from any specialist manufacturer.

Marantz
Marantz is introducing a host of new products ranging from high-end hi-fi to HD-ready DVD players and AV receivers. The two main product groups are the ‘premium’ and ‘range’ series.

Teac
TEAC’s all-new Reference Series offers innovation in audiovisual technology. The CR-230 DAB CD Receiver is a superb one-box unit which, when linked to a pair of speakers, makes for a cracking music system. While the Reference 300 Series T-H3OODA8 Mk II DAB/AM/FM tuner, when matched with the new 300 Series Mk II amplifier and CD player, forms another outstanding system.

Digital Radio
With Digital Audio Broadcasting (DAB) capability, these high-quality tuners deliver more stations and offers pure, distortion-free, CD-like sound, while providing useful radio and data services.
Pioneer

Pioneer has introduced three new DVD players. The super-slim thin) DV-Z710, UV-380 and DV-585A. All models are DivX compatible and deliver exceptionally high-quality pictures using a 108 MHz/12-bit Video D/A Converter. The DV-585A (below) is a universal player compatible with both DVD-Audio and SACD music discs.

Denon

Denon, Japan’s oldest audio company, has established an enviable reputation for the performance of both its hi-fi and home cinema products, winning numerous awards and accolades over the years. Its stylish systems have succeeded in becoming the benchmark by which all other are judged.

DVD Recorders

Although making digital recordings of TV broadcasts isn’t new, the choice, versatility and quality of recorders keep getting better. Our product selection includes both DVD only, hybrid DVD/hard-disk and multi-format models.

M&K

Enjoy cinema as the director intended with a speaker system that is genuinely designed for surround sound. Every Miller & Kreisel surround sound system is designed around the highest quality centre speaker available, as this critical speaker will reproduce more than 70% of a film soundtrack. Partnered with two identical main speakers, this produces seamless panning across the front soundstage, combined with the remarkable clarity and effortless dynamics that has made M&K the first choice in recording studios worldwide.

REL

In a market packed with subwoofers claiming to deliver the ultimate bass experience, only one brand of sub-bass system can prove its supremacy. With a record of review success stretching back over a decade, REL is acknowledged as the leading provider of deep, clean bass frequencies.

Roll LD

Wondrous surround sound performance. agile and deep subwoofer.

Mordaunt Short

Ever since Mr Mordaunt met Mr Short and the conversation turned to hi-fi, the company has churned out world class loudspeakers. But the latest creation is unlike anything that has gone before. The Genie system is a remarkable blend of style, innovation and application... The most accomplished small sub/satellite in its class.

DVD Receivers

NEW RXV-657 AV RECEIVER

Onkyo

In the home cinema industry, a tremendous gap exists between entry-level receivers and seriously high-end home cinema. The 7.1-channel TX-SR603E receiver bridges that divide with capabilities like component video upconversion with a time base corrector to deliver pristine images through one cable. And with consistent power and a superior signal, expect no compromise in sound quality. When matched with the right DVD player (such as Onkyo’s DV-SP503) and speaker system, the TX-SR603E is definitely in a better league of home cinema.

Yamaha

Yamaha is recognised as a world leader in the fields of musical instruments and audio equipments and in more recent years, home cinema. New models for 2005 include upgraded AV receivers, amplifiers, and DVD players plus the innovative YSP-1 virtual surround speaker.

FLEXIBLE FINANCE OPTIONS*

Spread the cost of buying. Flexible finance options are available on the majority of products we stock.

Please note Some products/brands are not available at all stores. Please check with store before ordering.

£ PRICING POLICY

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.

www.ssav.com World Radio History
**Specialist home cinema**

At the heart of any home cinema is its screen. Sevenoaks Sound & Vision can put you in the picture with a selection of flat-panel displays and projection systems. LCD and plasma screens are just a few centimetres thick and come in sizes from a 13-inch portable to over 60inches.

---

**Sharp Aquos**

Only Sharp Aquos LCD TV offers so much perfection. With supreme styling, the appeal of the Aquos range is obvious. The Titanium Series combines Sharp's sixth-generation LCD panel with stunning, angular-styling, titanium colour-finish and superb build quality to produce a premium class of LCD IdTVs.

---

**Panasonic Viera**

There seems little doubt that the future of television is flat, and the future of flat is the award-winning VIERA range from the world leaders in screen technology. Panasonic. The VIERA range consists of both LCD and Plasma televisions. New additions to the range include 37, 42 & 50in PV5000 models with support for both high definition and MPEG-4 recording.

---

**Toshiba Stasia**

Boasting HDMI connectivity, this new model also features Toshiba's impressive Active Vision LCD picture processing technology, whereby detail is improved by increasing the pixel count of the screen by three times that of a conventional LCD TV.

---

**Fujitsu**

P50XHA40
50" Plasma Screen

"For those investing in a screen to take them into the high-definition future, it boils down to a choice between sets with either an HDMI or a DVI connection - but this new monster from Fujitsu is one of the very few plasma equipped with both. The company's reputation for producing high-end screens means that it is yet to make its mark on the mass market, but that could be about to change...

Images are solid and coherent and noiseless. This is plasma at it's best."

---

**Hitachi**

PLATARA 42PD7200 42" PLASMA TV

"Alright, we admit it; we rather like this screen. In fact, it's very difficult to find a reason why anyone hankering for a 42in plasma shouldn't go out and buy one. Five stars for Hitachi and a new standard for affordable excellence for everyone else."
ScreenPlay
From the worldwide leader in digital projection technology and solutions, the ScreenPlay™ projector is changing the face of home cinema offering market-beating performance, specification and value at every price point.

Sim2 Multimedia is a world-leading manufacturer at the forefront of home cinema technology and a name synonymous with high-end home cinema projection.

Themescene
Since its launch, the multi-award winning Themescene™ brand has rapidly established a five-star reputation for uncompromised image quality.

£ PRICING POLICY
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.

FLEXIBLE FINANCE OPTIONS*
Spread the cost of buying. Flexible finance options are available on the majority of products we stock. *Written advice is needed. Loan/credit notes are not required. Minimum balance is £50, subject to status.

PLEASE NOTE
Some products/brands are not available at all stores. Please call to confirm or visit our website before travelling.

ADVERT VALID UNTIL AT LEAST 20/10/2005, E&OE.

Product Selection
Listed below is a small selection of our extensive product range. Please note: Some products/brands are not available at all stores. Please call to confirm or see the brand locator at www.ssav.com before travelling.

TURNABLES
Goldring GR1 £ CALL
Linea RANGE £ CALL
Michell RANGE £ CALL
Project RANGE £ CALL
Roksan Radius 5 £ CALL

TUNERS
Arcam RANGE £ CALL
Cyrus TARA X £ CALL
Cyrus CRG £ CALL
Cyrus CD £ CALL
Linn RANGE £ CALL
Marantz ST4000 £ CALL
Pure DRX-207ES DAB £179.95
Pure DRX-207ES DAB FM £179.95
Roksan QUAD £ CALL
Roksan RANGE £ CALL

CD PLAYERS
Arcam RANGE £ CALL
Audiolab RANGE £ CALL
Cyrus RANGE £ CALL
Denon DCD £119.95
Linn RANGE £ CALL
Marantz PM440 £139.95
Meridian RANGE £ CALL
Musical Fidelity RANGE £ CALL
NAD RANGE £ CALL
Quad RANGE £ CALL
Roksan RANGE £ CALL
Roksan RANGE £ CALL

CD RECORDERS
Yamaha CD-6100 £469.95

AMPLIFIERS
Arcam Solo Ex £ CALL
Audialab RANGE £ CALL
Cyrus RANGE £ CALL
Denon PMA £119.95
Linn RANGE £ CALL
Marantz PM £139.95
Meridian RANGE £ CALL
Musical Fidelity RANGE £ CALL
NAD RANGE £ CALL
Quad RANGE £ CALL
Roksan RANGE £ CALL
Roksan RANGE £ CALL

HI-FI SPEAKERS
Acoustic Energy Aegis Evo One £119.95
Acoustic Energy Aegis Evo Three £229.95
Acoustic Energy Agile RANGE £ CALL
Amphion Neo RETRAY £ CALL
AV Neutron IV £ CALL
B&W RANGE £ CALL
KEF RANGE £ CALL
Linn RANGE £ CALL
Meridian RANGE £ CALL
Mission RANGE £ CALL
Monitor Audio RANGE £ CALL
Quad RANGE £ CALL
Roksan RANGE £ CALL
Wharfedale RANGE £ CALL

HI-FI SYSTEMS
Arcam Solo Ex Speakers £ CALL
Denon RANGE £ CALL
Denon DDX100 £189.95
Denon D-M350 £189.95
Linn Classic Music Ex Spks £ CALL
Monitor Audio Debut £ CALL
Onkyo CR-9500 £ CALL
Teac RANGE £ CALL
Yamaha NS-100 £ CALL

DVD SYSTEMS
Denon DHT-5500 £249.95
Denon DHT-5500 £249.95
KEF KIT100 £ CALL
Teac RANGE £ CALL

MULTI-ROOM AUDIO
Cyrus Link RANGE £ CALL
Learning Centre RANGE £ CALL
Yamaha MusicCast RANGE £ CALL

DVD PLAYERS
Made & owned. NEEMF £ CALL
Make & owned. NEEMF £ CALL
Arcam RANGE £ CALL
Cyrus RANGE £ CALL

DVD RECORDERS
MAKE & MODEL £ CALL

A/V AMPLIFIERS & RECEIVERS
Arcam RANGE £ CALL
Audialab RANGE £ CALL
Cyrus RANGE £ CALL
Denon AVC £ CALL
Harman Kardon RANGE £ CALL
Lexicon RANGE £ CALL
Marantz RANGE £ CALL
Onkyo RANGE £ CALL
Pioneer RANGE £ CALL

A/V SPEAKERS & PACKAGES
Acoustic Energy Evo 3B £1679.95
Artcoustic RANGE £ CALL
Audica RANGE £ CALL
B&W RANGE £ CALL
B&W Minl Theatre RANGE £ CALL
KEF KHT1005 £299.95
KEF KHT2005 £299.95
KEF Q3 £ CALL
M &K RANGE £ CALL
Mission M Cube £ CALL
Mission Elegante RANGE £ CALL
Monitor Audio RANGE £ CALL
Mordaunt Short Gene £ CALL
Quad L-Series £ CALL
Wharfedale Diamond 9 HCP £ CALL
Yamaha YSP RANGE £ CALL

SUBWOOFERS
B&W RANGE £ CALL
M&K RANGE £ CALL
ML Acoustics RANGE £ CALL
Monitor Audio RANGE £ CALL
Quad L-Series £ CALL
REL RANGE £ CALL
Wharfedale Diamond SW150 £ CALL

PLASMA
Hitachi RANGE £ CALL
Loewe RANGE £ CALL
Panasonic RANGE £ CALL
Sharp Aquos RANGE £ CALL
Toshiba RANGE £ CALL

PROJECTORS
Optoma RANGE £ CALL
Screenplay RANGE £ CALL
Screenplay SP5700 £ CALL £1499.95

ACCESSORIES
We have a wide range of Accessories from QED, Soundstyle, Grade, Golding and more.
Who are Sevenoaks?

Established as Sevenoaks Hi-Fi in 1972, we have grown steadily onto one of the leading independent home entertainment specialists in the UK, earning a reputation for outstanding service, choice and value for money. In 1995, reflecting our commitment to the emergent new technologies in home cinema, our name was changed to Sevenoaks Sound & Vision. We now have 50 stores across the land stocking a broad range of exceptional equipment and accessories.

How to shop at Sevenoaks

When it comes to making big decisions about what to buy, there's no substitute for actually road-testing your prospective purchases - seeing, hearing and experiencing the products in action, with the benefit of our expert knowledge and guidance to help you choose. To get the most from your Sevenoaks Sound & Vision experience, simply follow this checklist:

- ESTABLISH YOUR AIDS - Are you looking for an existing system to improve sound or picture quality, or are you looking for a more fundamental and comprehensive upgrade?
- BRING YOUR FAVOURITE DISCS WITH YOU - To ensure you get the most from your Sevenoaks Sound & Vision experience, simply follow this checklist:
- TAKE YOUR TIME - We want you to be as happy as possible with your choices, so please take as much time as you need to determine which products are right for you.
- JUST ASK - If you are unsure of any aspect of the products or technologies available, or would like more information about installation options, simply let us know and our staff will be happy to help you out.
- TAKE YOUR TIME - We want you to be as happy as possible with your choices, so please take as much time as you need to determine which products are right for you.

WITH OUR CUSTOM DESIGNED INSTALLATIONS, your home entertainment choices become as convenient as they are clever. We can help transform every room and every home, whatever your requirements and budget.

Our installation experts are trained to the highest standards in all areas and provide a prompt, reliable and totally professional service. Rest assured also that our commitment to service doesn't end once your equipment is in place. Sevenoaks staff will continue to support you and your kit long after your initial visit to one of our stores.

Custom Installation

Sevenoaks Website

The Sevenoaks Sound & Vision website has news and information on the Sevenoaks group and detailed pages to help you locate your nearest store. In addition, there are hundreds of SPECIAL OFFERS and STOCK CLEARANCE items available from our stores nationwide - many with savings of up to 50%.

To view our regularly updated product lists, visit www.ssay.com and click on special offers.

Hi-Fi & Home Cinema Guide

2005 EDITION

Pick up a copy of our 72 Page Guide at your nearest Sevenoaks Sound & Vision store or order a copy via our Website. The brochure will be posted to you (UK mainland addresses only) FREE OF CHARGE.
Usher's R1.5 is a pure Class A power amplifier with a difference — especially when you consider its extremely keen pricing, Stewart Wennen reports.

This magazine makes no secret of its love for pure Class A operation; there's no doubt it brings something to the party that conventional Class AB amplifiers cannot. The lack of switching distortion makes for an unusually clean and open sound — or to be more precise, the switching distortion of Class AB biased designs pollutes and sullies the original sound (which is, of course, naturally clean and open).

Trouble is, the trade-off with Class A is that power output comes right down — and to get it up to Class AB levels the amplifier needs to be seriously beefed up to dissipate the tremendous heat generated by those output transistors running at full tilt. Of course, this makes things very expensive, with the result that almost all Class A amplifiers command a price premium. Those that don't, such as the lovely Sugden A21a (see p16), simply don't have much power.

Well, Usher seems to be trying to square the circle, so to speak, with its Chinese built high end stereo power amplifier, offering a claimed 125W RMS per channel (and 40kg's worth of heatsinking to cope with it all) for a more £1,500. Too good to be true?

It's an understatement to say this is a visually imposing product, the 480x480x225mm R1.5 being instantly recognisable due to its vast, chunky brushed aluminium fascia panel, with its huge contoured grab handles and large rocker switch with power indication via a blue light emitting diode. Truly massive heatsinks stretch down both sides of the unit. Inside, the power supply smoothing capacitors are configured as two pairs of 10,000-microfarad units. The output stage uses multiple pairs of Motorola MJ15024/025 heavy-duty output transistors. With a massive thermal capacity, this unit utilises a thermal trip which switches the amplifier off in case of a fault condition. The amplifier also has a soft start circuit to allow the current surge to be better regulated on power up. Surprisingly perhaps, there is no loudspeaker protection on this model.

Fit and finish, as with all Usher products, is rather good. At the rear, there are two pairs of the best binding posts I have ever seen. They allow for the use of 4mm loudspeaker terminations whilst at the same time the use of heavy spade terminals. These binding posts lock the 4mm plugs into the post thus negating the possibility of accidentally pulling the cables out of the sockets. Signal input termination is taken care of with a pair of high quality phono sockets and also a pair of XLR balanced inputs, although balanced operation is a £100 option. Mains electrical power is supplied via an IEC socket.

**SOUND QUALITY**

The Usher R1.5 got off to a promising start with BBC Radio Four on FM, where voices sounded unusually delicate yet weighty. Indeed, its midband instantly impressed with a full, rich tone. Moving to vinyl, and...
James Brown presented a beautifully wide and deep stereo image, with stage depth to die for and correct placement of the musicians. Again, the bass proved satisfyingly vivid.

An early 1960s John Williams mono flamenco guitar recording done at Abbey Road, with its legendary warm sound, didn't disappoint either. The Usher successfully captured the warm rich sound of the instruments and correctly transcribed the decay of the notes in the studio. All these audio clues issued forth in abundance, to make the listening experience all the more profound.

Moving to some old school rock and roll in the shape of Led Zeppelin ("2"), and the hard driving rhythm machine filling my listening room with huge bass transients, the kick drum accenting the structure of the music. The Usher certainly takes no prisoners; I have been listening to Piano Symphony No. 3, I was able to fully appreciate the delicacy and sheer power of the music played by a great orchestra. This Deutsche Gramophone recording has been lauded as possibly the finest transcription ever made of this piece, and I could see why. Likewise, solo female vocals from Carol Kidd (Linn Records) sounded almost magical, the Usher's ability to transport the listener to the room where the performance is taking place proving uncanny.

Usher proved a joy to listen to.

A change of pace was due, so the next disc on the turntable was from Beethoven. As the string section murmured the introduction to his Fifth Symphony, I was able to fully appreciate the delicacy and sheer power of the music played by a great orchestra. This Deutsche Gramophone recording has been lauded as possibly the finest transcription ever made of this piece, and I could see why. Likewise, solo female vocals from Carol Kidd (Linn Records) sounded almost magical, the Usher's ability to transport the listener to the room where the performance is taking place proving uncanny.

The Usher has vast thermal capacity, with huge heatsinks and a massive thermal sink under the multiple output devices. It produces 150W into 8ohms and 200W into 4ohms — not enormous by today's standards — so the amp is sized to run flat out for long periods. However, at higher frequencies this proved uncanny.

An interesting one. Costing £500 more than the Sugden's A21a but offering some 105W RMS per side extra, plus amazing (perceived) build and Krell-like styling, the Usher R1.5 would seem to be too good to be true, so I'd expected to be disappointed upon audition. Well, I don't think it's as good as the A21a in some respects; it lacks the Sugden's liquid, effortless, flowing musicality. This isn't in itself a criticism, as so does virtually every other amplifier I've heard too. However, the other side of the coin is that it boasts massive reserves of power (by Class A standards), real depth and space and a sense of tidiness and proportion that the Sugden lacks. This makes for a brilliant package; no matter what you play through the Usher, it comes out in a tremendously authoritative way, with superb detail, excellent texturality and an excellent resolution of the recorded acoustic. Even if it came packaged in a biscuit tin, to do this for £1,500 would be major feat — so it's an outstanding considering how well the amplifier is built. In absolute terms, the R1.5 lacks the liquid musicality of some rival amps (Musical Fidelity's A5cr is a case in point), or the finesse or Lyngdorf's SDA2175 (another outstanding product, and this at under £800), but it's still right up there in value for money terms. For many, myself included I dare say, the fact that it looks like an £8,000 Krell might just seal the deal.

**VERDICT**: Excellent sonics allied to serious power output makes this an outstanding mid-price product.

**USHER R1.5**: £1,500

HiAudio

\+44 (0)1443 231458/9

www.hiadio.co.uk

---

**MEASURED PERFORMANCE**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input sensitivity</td>
<td>1.5V</td>
</tr>
<tr>
<td>Frequency response</td>
<td>4Hz-42kHz</td>
</tr>
<tr>
<td>Distortion</td>
<td>0.02%</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>1.5V</td>
</tr>
<tr>
<td>Power</td>
<td>150 watts</td>
</tr>
<tr>
<td>Noise (IEC A)</td>
<td>-116dB</td>
</tr>
</tbody>
</table>

---

**DP SAYS:**

The Usher Reference 1.5 is rather domestic for use, considering its power output. It looks better suited to arduous professional use. Measured performance was good, if not exceptional. NK
Arcam has been toughing it out in the volume sector for too long. Any latecomer to the audio market may well think of it as purveyor of excellent budget separates hi-fi, but the truth is that was originally a bastion of mid priced, and even occasionally high end, products. To wit, we had the A60 which, for example, retailed for £253 in 1980 — putting its cheapest product well into the thousand pound plus sector in real terms now. Then there was the C200/P200 pre-power, which sold for well over twice that — which in today’s money isn’t far off the princely sum of £3,400 for which a C31/P1 combo will set you back...

What we have here is not only their first monobloc amps for twenty-something years, but also their ultimate expression of stereo amplification. Certainly there’s plenty of excitement at the Arcam camp about this trio, and when you take a careful look at the C31/P1s you can see that a lot of care and attention has gone into the design.

Like most Arcam amps’ these days, the heart of the C31 preamp features ‘digital engine’. This allows for a myriad of features without cluttering up the facia and, more importantly, supposedly having minimal effect upon sound quality. A menu system allows access to be able to control individual input levels and tone settings. Furthermore there are three levels of volume sensitivity and a variable level processor to increase flexibility when used as part of a multi-channel system.

It’s nice to see a well engineered MM/MC phono stage as standard, although this can be switched to line level for those who don’t need it. Internally the finish is every bit as good as you’d expect from Arcam — four-layer printed circuit board and all — but there are some further tweaks to show Arcam have made even more of an effort than usual. At the top of critical capacitors I noticed Sorbothane damping panels, whilst the generously sized toroidal power supply and heatsink appeared suitably over spec’d.

Like the C30 preamp that preceded it, the C31 features XLR balanced inputs as well as the more traditional RCA phono sockets. Normally, I’m not terribly fond of XLRs, but in combination with the P1 power amps’ they make great sense. A key feature of monoblocks is the ability to place them as close to the speakers as possible, thus reducing ‘speaker cable length. Obviously longer interconnects are needed instead, but if you use a balanced XLR connection then this shouldn’t matter at all. With conventional, non-balanced, cables.

Apart from the XLR connects, the P1 amps’ feature RCA in/outs and two sets of speaker sockets per amp. Internally, the hefty toroidal transformer, large heatsinks and heavy gauge PCB all suggest that the claimed power output of 180 watts is entirely believable. As with the C31 preamp, there’s also much use of Sorbothane damping, right down to the feet, of which there are six on each P1!!

THE TEST

(1) B&W 60253 STANDMOUNDER (£300)

Beginning with Lennard/Lowe’s ‘To the Battleship’, with the Dresdner Sinfoniker orchestra, it soon became clear that the Arcam amps really made the B&W’s sing. Given that the DM602S3s are a modest load and of a budget price, this was perhaps of little surprise. However, the easy power on offer from the Arcams means that they projected and imaged the sound exceptionally well. In true Arcam fashion, the strings came across as refined and measured, although there was more bite available than some previous Arcam offerings. Bass, which can be a little plummy with these ‘speakers, was well controlled and had decent depth. There did, however, seem to be a slight loss of focus in the treble and the solo violin sounded a tad recessed and, surprisingly, lacking some expression.

The slightly reedy nature to the upper midrange appeared again with Jennifer Warnes’ ‘Big Noise New York’. Here it was the saxophone that lacked body. Separation, however, remained excellent and there was good timing if not quite in the Naim league. On the plus side the sense of articulation and precision was first rate, especially when it came to expressing and projecting Warnes’ vocals. The downside to this very transparent presentation was a slightly mechanical presentation that reminded me of the old Audiolab pre/power amps’. Articulate and expressive vocals were a key quality with the Crush Test Dummies, ‘Afternoons & Coffeespoons’. The fine detail retrieval meant that subtle guitar chords could clearly be heard and individual instruments were all given plenty of space with
REVIEW

which ro "breathe". Whilst bass wasn't quite as deep as this sort of power betokens, it was exceptionally taut and well controlled. The balance between, excitement and refinement I felt Arcam had judged well, although the fact that it became just a little relentless at higher volumes would suggest that brighter 'speakers may well not suit the Arcams quite so well. It came as little surprise to find the Arcam most at home with Classical music - Arcams often are. With Emmanuel Chabrier's 'Espana', timbre from both brass and strings was exceptionally well resolved.

The spacious staging width came as little what did, certainly compared to dreams of past, was the dynamic scale of the piece. As well as controlling the dynamic scale, the Arcam plus transducers that the Arcams seemed happiest. Putting the Espana straight back on after having listened to it on the DM602s provided the greatest ear opener. The e82s have always impressed with their transparency and detail resolution, but it was with the Arcams that they really came to life. Compared to the DM602s there was a greater sense of tension, an enhanced dynamic scale and a more powerful bass presence. Interestingly, when I originally tested these speakers I found them a little bass thin. The Arcams proved that, given enough welly, there is bottom end to be had - it just needs an amplifier that can extract it. Jennifer's vocal weren't conveyed as well with the AE1 MK IIs - there wasn't too much sheen here to observe the e82s made the most of the road. The lack of detail was some what disappointing, although the overall tone was more mechanical than they had been on the DM602s. Nevertheless it still isn't one of those amplifiers that Class-A fluidity. Switching to the Crash Test Dummies, I found the initial brightness return - indeed the AE1 IIs can sound a little bright - a side effect of their explicit detail - but I hadn't expected an Arcam, of all brands, to excite this! Match the cables and room carefully and this shouldn't be a problem, but it's clear that those expecting the usual Arcam silky smooth treble, albeit at the expense of detail, could be surprised by the C31/Ps more explicit nature. The upside was excellent resolution from the stringed instruments and a very well integrated vocal performance with fine tonal colour - impressive stuff.

[3] ACOUSTIC ENERGY

AE1 MKIII MINIATURE (£2,000)

The analytical character heard in 'To The Battleship' was carried through using these famous reference monitors too, yet the C31/Ps did a great job in powering the tricky AE1s. Bass was deep, with fine extension, if not quite as hard hitting as something like the more powerful CAV-A10. The spacious staging and sweeping strings showed the positive benefits to be had from good monobloc amplification, with very good projection to match. And you couldn't argue with the Arcam's sense of balance and technical ability, even if the AE1s weren't quite providing the best evidence for this. Turning to the Crash Test Dummies, I found the initial brightness return - indeed the AE1 MK IIs can sound a little bright - a side effect of their explicit detail - but I hadn't expected an Arcam, of all brands, to excite this! Match the cables and room carefully and this shouldn't be a problem, but it's clear that those expecting the usual Arcam silky smooth treble, albeit at the expense of detail, could be surprised by the C31/Ps more explicit nature. The upside was excellent resolution from the stringed instruments and a very well integrated vocal performance with fine tonal colour - impressive stuff.

[2] MISSION 682 FLOORSTANDER (£4,999)

Whilst all three 'speakers are well

advantages and disadvantages, it was with these transducers that the Arcams seemed happiest. Putting the Espana straight back on after having listened to it on the DM602s provided the greatest ear opener. The e82s have always impressed with their transparency and detail resolution, but it was with the Arcams that they really came to life. Compared to the DM602s there was a greater sense of tension, an enhanced dynamic scale and a more powerful bass presence. Interestingly, when I originally tested these speakers I found them a little bass thin. The Arcams proved that, given enough welly, there is bottom end to be had - it just needs an amplifier that can extract it. Jennifer's vocal weren't conveyed as well with the AE1 MK IIs - there wasn't too much sheen here to observe the e82s made the most of the road. The lack of detail was some what disappointing, although the overall tone was more mechanical than they had been on the DM602s. Nevertheless it still isn't one of those amplifiers that Class-A fluidity. Switching to the Crash Test Dummies, I found the initial brightness return - indeed the AE1 IIs can sound a little bright - a side effect of their explicit detail - but I hadn't expected an Arcam, of all brands, to excite this! Match the cables and room carefully and this shouldn't be a problem, but it's clear that those expecting the usual Arcam silky smooth treble, albeit at the expense of detail, could be surprised by the C31/Ps more explicit nature. The upside was excellent resolution from the stringed instruments and a very well integrated vocal performance with fine tonal colour - impressive stuff.
Worth The Wait...

The long-awaited versatile CD-1 transport/player is coming...

User-selectable upsampling (48kHz, 96kHz, 192kHz - 24 bits). Reclocking on output stage, minimizing jitter and improving detail, timing, dynamics, imaging and soundstage. Optimized musical Philips transport mechanism. High quality DAC can be switched off to maximize performance when used as dedicated transport. Linear power supply - with low noise local regulators on critical circuits and optimized regarding EMC/EMI performance. Matches rest of Lyngdorf Audio range.

This new CD player extends the Lyngdorf Audio range of products that offer high performance, value and versatility.

At £2150, the TDA 2200 True Digital Amplifier offers:

The functionality of a DAC, pre and power amplifier. Simply connect a CD transport to obtain pure music. Optional analogue inputs available. Parametric and voicing equalizers, subwoofer DSP crossovers. Ready to accept the new room correction module. 200W/8 ohms, 375W/4 ohms.

At £775, the SDA 2175 Power Amplifier offers:


At £1095, the SDAi 2175 Integrated Amplifier shares the same impressive power engine as its brother and includes the following main features:

6 RCA inputs + 1 XLR balanced input. Tape Out. Pre-amp output balanced and single-ended. Programmable attenuation, level and balance for each input. IR remote control. RS 232 connection for software upgrades.

Millennium True Digital Amplifier:

Our statement amplifier. The world's first true digital amplifier, now in its 3rd generation.

"Supremely smooth and well balanced in every respect, this amplifier starkly shows what other solid-state does wrong. Brilliantly engineered, it's nothing less than an epoch-making product.

VERDICT - Outstanding." SDA review, Hi-Fi World, June 2005
the Arcams proved there is
bottom end oomph to be had
from even tricky loudspeakers
you just need an amp' that can
extract it...

from the Acoustic Energy's, with a
full bodied brass section and smooth
strings offering a balance that would
be hard to beat.

CONCLUSION
Without doubt one of the finest
products Arcam has
ever developed and
engineered, the C31/
P1 combo shows
exceptional attention
to detail in design,
excellent build and true
engineering integrity.
Whatever the 'speaker, the Arcam trio offers
a spacious sound stage
and separation that you
only get with the finest
pre/power combos,
with real unam-
melled power to drive
almost any loudspeaker
courageously. But don't think of it as traditional
Arcam fare, in both the
good and bad senses: it's
incisive and analytical,
and can even sound
bright with certain
'speakers. The Mission
e82's mostly disguised
this, but with the
other two there were
times when the sound
came across. As always,
the sound you get is a
function of the amplifier-
speaker matching, and so
Arcam C31/P1 buyers
should go for smooth, medium to
high sensitivity designs like Mission
e82, which proved a dynamic
combination.

MEASURED PERFORMANCE
The P1 mono power amplifier uses
Sanken power devices bolted to a
chunky internal heatsink and fed by a
large toroidal mains transformer. This
combo delivered exactly 200W into an
8ohm load, our measurements showed.
This rose to 340W into 4ohms and as
most bass units are, these days, of
4ohm impedance this is roughly what is
available in practice. The P1 overloaded cleanly but
suddenly, suggesting a lot of feedback
was responsible.

The C31 preamp's gain wasn't set
correctly, but Arcam told us the quoted
maximum is 280mV with the input
preset at maximum (8), meaning a gain
of x3.5 is available, useful enough.
The P1 will work in most situations,
but some DC input conditions will cause
problems. Otherwise it measures well.

ARKAM C31/P1
£3,900
Arcam
+44 (0) 1223 203200
www.arcam.co.uk

VERDICT
Exceedingly balanced, spacious and
powerful, starting examination amatuer
aesthetes, fanatics and

The vocal rendition of Jennifer
Warner was similarly impressive
being articulate and free in a
manner that had eluded the other
two speakers - a rare occasion in
which the AEi MK III's significantly
improved upon the e82's. Again, the
twix' could have used a little more
sparkle, but the whole performance
came across as polished and well
presented. Whether it was truly
involving, though, I was less sure.
Although other amps may be
technically more adept. I feel sure
they could convey the spirit of and,
the emotion behind, the music more
effectively. Once again it came down
to the Chabrier to restore my faith
in the Arcam trio makes matching.
In the midband total harmonic
distortion measured 0.008% from low
to full output. At 1kHz this increased
slightly to a very acceptable 0.005%,
climbing to 0.01% at full output into
4ohms - a gruelling test. Our analysis
shows just a trace of third harmonic
was responsible.

Power
200watts
CD/tuner/aux.
Frequency response
3Hz-117kHz
Separation
88dB
Noise
108dB
Distortion
0.005%
Sensitivity
dc offset
280mV
10/6mV

“the Arcams proved there is
bottom end oomph to be had
from even tricky loudspeakers
you just need an amp' that can
extract it...”
How much power do you need? A few simple calculations give useful 'ball park' figures. Small loudspeakers commonly provide 86dB SPL (Sound Pressure Level), at a distance of one metre from one watt of input, our measurements show. That means they sound comfortably loud if you sit one metre in front, from a mere watt. This gives the impression that sixty of them will blow your brains out.

It isn't quite so. Sound pressure drops roughly 6dB with every doubling of distance, so 12ft away (i.e. 4m), a normal enough listening distance, there's no less than 12dB loss, so we're down to 74dB - and that's roughly equivalent to hushed conversation. You'll hear it, but it won't sound loud. We have two channels working, doubling power, which adds 3dB, so with stereo we can enjoy 77dB SPL from one watt per channel.

Let's go loud, to 100dB at the listening position. That requires a 23dB increase in sound pressure level, which calculates out to a huge x200 power jump, to no less than 200W total, provided by a 100W per channel amplifier. Power levels jump up rapidly thereafter, as for an extra 3dB SPL you need to double power again. As Concorde was clocked at 120dB in an aircraft enthusiast would need 1100W or more to reproduce this in his home.

That sketches out the various factors affecting power, loudness and their interrelationship. If you juggle these figures, or simply use a handy internet calculator such as that at http://www.myhometheater.homestead.com/splcalculator.html to do the work for you, then you'll soon get the hang of this power issue.

Musical Fidelity use calculations like this to justify their high power amplifiers. In their view, for adequate headroom we require the system you need to comfortably exceed the 100W per channel norm. This is a common enough view among audio enthusiasts, but also that audio purists...
Too many older males, mostly in the music business (I live near Abbey Road), have spent their life listening at high volumes and you don't get much sense out of them in the pub unless you shout, I find. So if you don't want to go there, best to keep it down a little...

I get by with a 28W per channel amplifier and play quite loud at times. But then I use a pair of 90dB sensitive floorstanders, and increased loudspeaker sensitivity makes a big difference.

If you really feel you need high power, say for the banqueting hall in your country mansion, bear in mind that another danger arises: low flying aircraft. Put too much power into a loudspeaker and it may well fly apart. Alternatively, it will burn out. It is very difficult to generate high acoustic powers, especially at high frequencies. Take a look at foghorns or PA loudspeakers to see how this difficulty is tackled. High pressure, horn loaded tweeters are common, accompanied by huge bass units able to shift mountains of air. I'm reminded about all this yearly when the Notting Hill Carnival starts. Only recently, at 10am sharp on a Saturday morning, my bedroom windows started to shake in response to a battery of 18in bass units mounted on a float; this is acoustic power for you.

Top of Tannoy's Prestige range lies the giant Westminster Royal HE, a compound horn. Standing 55in high and weighing 300lbs, it delivers 99dB sound pressure from one watt. Tannoy Westminster, generates a breathtaking 99dB from one watt.

I'm sure most Hi-Fi World readers realise that fidelity takes a back seat when power gets in up front. So big PA speakers are no solution to filling a banqueting hall, and neither is a Foghorn. Luckily, in spite of appearances, big, floorstanding hi-fi loudspeakers are by their nature relatively sensitive, giving 90dB or so from one watt, at one metre. This alone limits the need for a powerful amplifier and a special loudspeaker able to handle its output. One of the world's biggest hi-fi loudspeakers, the Tannoy Westminster, generates a breathtaking 99dB from one watt.

Power absorption is improved by using multiple bass drivers. Providing both the tweeter and crossover are robust, a big, floorstanding loudspeaker can usually deliver pretty big sonic levels. Because SPL falls away so fast with distance though, especially with lots of people sitting around feasting on boar washed down by mead, serfs in the far reaches won't get to hear much. These days they're best served by surround-sound, as is any large room. This way, large amounts of power - 1000W or more - is distributed through five, six or even seven hi-fi loudspeakers, giving a smooth, even spread of sound for the enjoyment of king and serf alike. That's socialism for you.

Small, insensitive loudspeakers are a bigger problem. Producing just 80dB-83dB or so from one watt, at one metre. This alone limits the need for a powerful amplifier and a special loudspeaker sensitive floorstanders, and increased loudspeaker sensitivity makes a big difference. If another danger arises: low flying aircraft. Put too much power into a loudspeaker and it may well fly apart. Alternatively, it will burn out. It is very difficult to generate high acoustic powers, especially at high frequencies. Take a look at foghorns or PA loudspeakers to see how this difficulty is tackled. High pressure, horn loaded tweeters are common, accompanied by huge bass units able to shift mountains of air. I'm reminded about all this yearly when the Notting Hill Carnival starts. Only recently, at 10am sharp on a Saturday morning, my bedroom windows started to shake in response to a battery of 18in bass units mounted on a float; this is acoustic power for you.

Top of Tannoy's Prestige range lies the giant Westminster Royal HE, a compound horn. Standing 55in high and weighing 300lbs, it delivers 99dB sound pressure from one watt. Tannoy Westminster, generates a breathtaking 99dB from one watt.

I'm sure most Hi-Fi World readers realise that fidelity takes a back seat when power gets in up front. So big PA speakers are no solution to filling a banqueting hall, and neither is a Foghorn. Luckily, in spite of appearances, big, floorstanding hi-fi loudspeakers are by their nature relatively sensitive, giving 90dB or so from one watt, at one metre. This alone limits the need for a powerful amplifier and a special loudspeaker able to handle its output. One of the world's biggest hi-fi loudspeakers, the Tannoy Westminster, generates a breathtaking 99dB from one watt.

Power absorption is improved by using multiple bass drivers. Providing both the tweeter and crossover are robust, a big, floorstanding loudspeaker can usually deliver pretty big sonic levels. Because SPL falls away so fast with distance though, especially with lots of people sitting around feasting on boar washed down by mead, serfs in the far reaches won't get to hear much. These days they're best served by surround-sound, as is any large room. This way, large amounts of power - 1000W or more - is distributed through five, six or even seven hi-fi loudspeakers, giving a smooth, even spread of sound for the enjoyment of king and serf alike. That's socialism for you.

Small, insensitive loudspeakers are a bigger problem. Producing just 80dB-83dB or so from one watt, at one metre. This alone limits the need for a powerful amplifier and a special loudspeaker able to handle its output. One of the world's biggest hi-fi loudspeakers, the Tannoy Westminster, generates a breathtaking 99dB from one watt.

Power absorption is improved by using multiple bass drivers. Providing both the tweeter and crossover are robust, a big, floorstanding loudspeaker can usually deliver pretty big sonic levels. Because SPL falls away so fast with distance though, especially with lots of people sitting around feasting on boar washed down by mead, serfs in the far reaches won't get to hear much. These days they're best served by surround-sound, as is any large room. This way, large amounts of power - 1000W or more - is distributed through five, six or even seven hi-fi loudspeakers, giving a smooth, even spread of sound for the enjoyment of king and serf alike. That's socialism for you.

Small, insensitive loudspeakers are a bigger problem. Producing just 80dB-83dB or so from one watt, at one metre. This alone limits the need for a powerful amplifier and a special loudspeaker able to handle its output. One of the world's biggest hi-fi loudspeakers, the Tannoy Westminster, generates a breathtaking 99dB from one watt.

Power absorption is improved by using multiple bass drivers. Providing both the tweeter and crossover are robust, a big, floorstanding loudspeaker can usually deliver pretty big sonic levels. Because SPL falls away so fast with distance though, especially with lots of people sitting around feasting on boar washed down by mead, serfs in the far reaches won't get to hear much. These days they're best served by surround-sound, as is any large room. This way, large amounts of power - 1000W or more - is distributed through five, six or even seven hi-fi loudspeakers, giving a smooth, even spread of sound for the enjoyment of king and serf alike. That's socialism for you.

Small, insensitive loudspeakers are a bigger problem. Producing just 80dB-83dB or so from one watt, at one metre. This alone limits the need for a powerful amplifier and a special loudspeaker able to handle its output. One of the world's biggest hi-fi loudspeakers, the Tannoy Westminster, generates a breathtaking 99dB from one watt.

Power absorption is improved by using multiple bass drivers. Providing both the tweeter and crossover are robust, a big, floorstanding loudspeaker can usually deliver pretty big sonic levels. Because SPL falls away so fast with distance though, especially with lots of people sitting around feasting on boar washed down by mead, serfs in the far reaches won't get to hear much. These days they're best served by surround-sound, as is any large room. This way, large amounts of power - 1000W or more - is distributed through five, six or even seven hi-fi loudspeakers, giving a smooth, even spread of sound for the enjoyment of king and serf alike. That's socialism for you.

Small, insensitive loudspeakers are a bigger problem. Producing just 80dB-83dB or so from one watt, at one metre. This alone limits the need for a powerful amplifier and a special loudspeaker able to handle its output. One of the world's biggest hi-fi loudspeakers, the Tannoy Westminster, generates a breathtaking 99dB from one watt.

Power absorption is improved by using multiple bass drivers. Providing both the tweeter and crossover are robust, a big, floorstanding loudspeaker can usually deliver pretty big sonic levels. Because SPL falls away so fast with distance though, especially with lots of people sitting around feasting on boar washed down by mead, serfs in the far reaches won't get to hear much. These days they're best served by surround-sound, as is any large room. This way, large amounts of power - 1000W or more - is distributed through five, six or even seven hi-fi loudspeakers, giving a smooth, even spread of sound for the enjoyment of king and serf alike. That's socialism for you.

Small, insensitive loudspeakers are a bigger problem. Producing just 80dB-83dB or so from one watt, at one metre. This alone limits the need for a powerful amplifier and a special loudspeaker able to handle its output. One of the world's biggest hi-fi loudspeakers, the Tannoy Westminster, generates a breathtaking 99dB from one watt.
3 STEPS TO PURE LISTENING ENJOYMENT

Step 1 - Use Silver Wire, it is more conductive than copper and so delivers a much more realistic musical performance. Step 2 - The Unique Air Cables reduce dielectric effects by encasing the Silver Wire in air, giving better transients and imaging. Step 3 - Plastic Cables, Slinkylinks does away with cumbersome metal components that further degrade sound by using Eichmann Bullet RCA Interconnects and light weight banana plugs on Speaker cables. 3 steps that allow Slinkylinks to deliver amazing clarity and detail against an all black background (well they do come from New Zealand!)

For more information www.slinkylinks.net

Just a click away at www.audio42.com
POWER VERSUS QUALITY

Top hi-fi amps - well, some of them at least - produce just 3W. Other top hi-fi amps produce 300W plus. Are there any great truths behind all this?

Truly esoteric amplifiers, such as Single-Ended Triodes, or SETs, generally come in below 10W, to keep heat production and size in check. They are pure Class A by nature, with no crossover distortion and often little feedback. Minimalist by nature, they do often possess a smoothness of sound that can't be matched by today's transistor jobbies. To use amplifiers like this though I suggest a really good pair of sensitive floorstanding loudspeakers are used. Anything below 20W will soon run out of steam as you push volume up past moderate to loud.

Conventional solid-state amplifiers throng the 60W-200W region nowadays. Whether they use conventional transistors or FETs really isn't too consequential - and FETs certainly don't sound like valves. They do, however, have extended high frequency gain, which in turn allows more feedback to be used, lessening high frequency distortion. That fact alone doesn't guarantee good sound quality though. Most 60W-200W amps are, in their topologies, much alike, which is why they usually sound very much alike. Well tried and tested design solutions, bolstered by computer design programmes such as the University of Berkley's Spice and all its variants, help ensure this. Conservatism, as well as belt and braces protection circuitry, also helps ensure that today's hi-fi amplifier won't blow up your loudspeakers, should it fail. This was a serious concern with early designs during the 1960s and 70s.

For higher powers solid-state devices must be paralleled up to handle the extra current. Surprisingly, this helps reduce distortion by averaging out their parameter spreads. All other things being equal, really high power amps can sound quite smooth as a result. However, don't rely on it. There are plenty of big amps around that have plenty of waltz, accompanied by a treble that's fizzy and crude.

Minimalist by nature, they do often possess a smoothness of sound that can't be matched by today's hi-fi amplifier won't blow up your loudspeakers, should it fail. This was a serious concern with early designs during the 1960s and 70s.

Not so common in the U.K. are esoteric, high power U.S. amps., such as Krells and Levinsons. U.S. homes are a good size up on those in the UK and need higher powers, coupled with good quality. Amplifiers like this look a little over inflated for the U.K. but they often use original components and circuitry. If you have a wallet that needs lightening, it may be worth listening to a few Krells, for example, have been a popular choice for loudspeaker demo rooms.

Finally, a whole new breed of 'digital' amplifier is starting to appear now. Good designs, such as the Lyngdorf featured this month, are very good. I have measured some desperately bad digital amps in the past, however, one coming from Sharp. Not all digital amplifiers are alike; the output filters and feedback systems used are crucial to success and vary widely in sophistication. So called digital amps (they're really analogue PWM amps) have traditionally suffered severe distortion, noise and load sensitivity. So listen with care and at length for a harsh, brittle sound, preferably with more than one set of loudspeakers. Having said that, the TacT/Lyngdorf design comes across as silky smooth. This may change in future as bandwidths increase, as today's digital amps are bandwidth limited. They are not power limited though. If you want high power without fans and heatsinks, this is the place to look, as efficiencies are high, up to 85% or better.

In a nutshell then, quality isn't strictly related to power. Having said that, the widest variations in sound quality exists in esoteric low power designs, especially SETs from companies such as AudioNote. If you want to hear how fluid, sweet, natural and relaxing music can sound - some may say somnambulent - head in this direction. I can think of little like it at high powers, although EAR offer various sonic solutions that differ from the norm, using both solid-state devices and valves.

LOUDSPEAKER POWER RATINGS

Power is commonly confused with loudness in hi-fi, especially with loudspeaker power handling, but whilst related, these factors aren't at all the same. Let's look at the misunderstanding with loudspeakers.

The main factors limiting a loudspeaker's output are thermal and mechanical, or put more graphically, the point at which it either burns out or blows up. There are no end of standardised tests to assess this, from the Audio Engineering Society, International Electrotechnical Commission (Europe), Electrical Industries Association (USA) and others. Whilst these give reasonably useful power handling figures they still don't say how loud the speaker is, in terms of acoustic output, at this limit. You can estimate it though. If sensitivity is 86dB from one watt and the power limit 200W, then you have a power increase of x200, or 23dB. Add this to 86dB and you get 109dB, at one metre from the speaker. Seated 4metres away you can subtract 12dB to come up with 97dB SPL at your ear, which our chart shows is very loud. In practice a reverberant room will bring this up to 99dB, but over optimistic loudspeaker sensitivity figures knocks this back a db or two, making the original 97dB figure about right!

The best way to specify loudness is simply as a dB SPL figure out at one metre - and KEF do this. A loudspeaker like their Reference 203 is quoted as reaching 113dB, so you should get an easy 100dB SPL from it 4metres away. KEF quote 89dB sensitivity from one watt, a 24dB power increase, given by a 250W per channel amplifier. KEF recommend amplifiers of 200W maximum, giving 1dB of leeway to the 'speaker. Note that maximum power handling is not quoted here, but is in excess of 250W. As KEF view it, people don't operate their speakers up to the point of destruction, as specified by the power rating, because distortion levels are intolerable. Bear this in mind when looking at the peak power ratings for a loudspeaker.
Is it possible to synthesise style and sonics? Danish high end specialist Densen thinks so, with its B-250/B-330 power amplifier combo. Channa Vithana tries it with three modern loudspeaker systems...

It is not just the wonderful aesthetics, but the sound quality, build and the holistic creative attitude typically found in an individualistic and independent company that drew me to Densen (literally translated as 'son of Denmark'). I first came across the marque through their fantastic Beat B-100 integrated (£895) in the mid nineties, which had two cylindrical knobs and not much else. It was a rhythmically musical amplifier, and this high end £6,000 combo before you now continues the theme...

B-250 PREAMPLIFIER
The £3,000 B-250 is Densen’s reference preamplifier, completed in their outstanding extruded aluminium casework with the main fascia formed from a continuous L-section. Densen say they use aluminium throughout the whole cabinet to reduce magnetic induced distortion to a minimum. Using extruded profiles in aluminium has several benefits; the cabinet is much more rigid, thereby improving the circuits resistance to vibrations and thereby improving the sound, and by using extrusions the labour cost of the cabinet is lowered, and thereby it is possible to get a higher quality for the same amount as a traditional sheet metal cabinet. The casework also neatly avoids any top-mounted screw fixings leaving them located away from normal viewing conditions.

The B-250 uses four buttons either side of the red LED display for standby, mute, volume up, volume down, input left, input right, proc. (surround processor volume control) and status to scroll designated functions. Options include plug-in phono boards - either the £130 DP.03 MM or £275 DP.06 MM/MC. These phono boards are rather special in that they use solar driven power supplies with attractive blue LEDs for the sunlight! For multichannel audio an SB-1 board at £250 or SB-2 having "extremely high quality preamp stages" for £750 can be plugged in. Thus adding an £1,800 Densen B-340 four-channel power amplifier for instance and a DVD/SACD player, the B-250 (with B-330) can switch/operate from high-quality two-channel or multichannel without the typically compromised performance from a generic AV receiver.

The B-250 features a turntable ground connection, four line and two tape connections and four pre outputs for Densen’s SAXO active system (see the B-330) and/or bi/tri amping. There are two EPS sockets that accept two (forthcoming) DNRG external upgrade power supplies A switchable mains input and Den Link multi-room connection complete the adaptable and flexible functionality. The B-250 uses a superb two-hundred step volume control operated by “laser trimmed Vishay metal film (resistors) with a precision of 0.1%” and Vishay relays which bestow exceptionally fine volume adjustment (the inputs are also relay switched). Internally it features three 20VA sealed transformers for the power supply and 100,000 micro-Farads of storage capacity. The transformers are custom made for Densen by a Danish manufacturer. They are wound in a special way, that makes them work as isolation transformers and encapsulated in a plastic moulding, to avoid vibrations reaching the delicate circuitry. The optional £150 Gizmo remote is gorgeously aluminium crafted, operating at almost any angle.

B-330 POWER AMPLIFIER
The £3,000 B-330 is Densen’s top stereo power amplifier, and sports beautifully engineered aerofoil...
"the Densen B-330 power amp is the audio equivalent of a Danish built AK47!"

like heatsinks at either side. These are necessary for the maximum heat dissipation required by their conservatively rated (quoted) power delivery of 120W/8ohms that doubles into 240W/4ohms; the aerofoils facilitate continuous openings through the casing. Consequently a stunning functional aesthetic is revealed, declaring an enduring, discrete yet modernist feel making this the most attractive design so far from Densen. The aerofoils are finalised at the top of the casing as a series of precisely cut lozenges perforations. There is a single red LED in the front and the flush visage is left unspoilt by buttons or garish nameplate. This makes for a best looking power amplifier I personally have yet seen.

The B-330 can be upgraded internally with a plug-in £400 configurable SAXO active crossover for active operation to your

speaker and for this it has a special pre input at the rear. There is also a set of 'normal' sockets, Den Link, speaker binding posts, switched mains input and a switchable gain selector for normal or high. This last function is truly excellent for owners of Densen’s B-100 integrated (or a passive pre-amp/CD player with volume control), as I have had excellent results using its last iteration in passive mode providing excellent volume control and sound quality through Densen’s range-topping £5,200 B-350 monoblocs [...and so you should at that price – Ed.] Accordingly for the £3,000 B-330 this would allow a later purchase of the £3,000 B-250 preamplifier when funds permit. The B-330 measures 444x310x64mm and weighs 15kg.

THE TEST

(1) MONITOR AUDIO RADIUS 90 MINIATURE (£250)

Noel Keywood's measurements for the £250 MA's state Bohm impedance with a low 84dB sensitivity, so they could be a somewhat awkward load. With Elgar’s 'The Dream Of Gerontius', the Monitor Audios worked superbly with the Densens meshing with the little speaker’s innate musical timing beautifully. There was a free flowing and dynamic presentation. The orchestration swelled and was propulsive, powerful and expressive. Driven by the Densens the multiple vocals took advantage of the Monitor Audio’s widescreen ability by being temporarily extended. The Pet Shop Boys’ 'Behaviour' LP in collaboration with Harold Faltermeyer was almost entirely constructed from scratch with minimal sample use. Thus with gorgeously lush synthesiser swathes, 'This Must Be The Place I Waited Years To Leave' features guitarist Johnny Marr and orchestration by Angelo Badalamenti and is musically quite a sophisticated piece. The Densens unravelled a dynamic acoustic out of the little Monitor Audios with both control and verve. The resolution from these £250 speakers through the Densens leaned towards the high-end with both vocals and instruments - without sacrificing one iota of rhythmic thrust. The spatiality capably emphasised a cinematic feel. The
neat acoustics

We’re about to reveal our Motives

www.neat.co.uk
01833 631021
Damned's 'Street Of Dreams' was animated, textural and dynamic. David VANian's sanguinary-vampire vocals were superbly 'reactivated'. The saxophone also had in-room presence with excellent timbre. The sixties style guitars melded wonderfully with the bass and drums. The end saxophone coda was handled well, the Densens clearly revelling in their musical grip over the tiny Monitor Audios.

When he measured the £1695 Reference 3A Dulcet standmount speakers, Noel Keywood said they were "...very insensitive, providing just 81dB SPL from one nominal watt (2.8V) of input. (And further that) A powerful amplifier will be needed. The reason for this is a high overall impedance of 80ohms, largely resistive, right across the audio band, except at bass resonance. Accordingly the Densens handled their more awkward load with graceful ease! They simply powered them to much louder than normal listening volumes and extracted a commensurately higher resolution sound with Elgar's 'The Dream Of Gerontius'. With 'This Must Be...' by the Pet Shop Boys there was a deep throbbing bass line which was nicely aligned to the rest of the music structure and Neil Tennant's vocals. The cinematically echoed guitar melodies were suitably fluid yet deep and communicative. Johnny Marr's beautiful guitar melodies were now awesome, resonating beautifully through the musical structure and the vast but underlying depth and decay to both vocals and instruments. The orchestra and vocal crescendos were handled with consummate ease and had no subjective distortions, colorations or dynamic resistance. The Densens feeding the Waterfalls also revealed first-rate acoustical textures and timbre with 'The Dream Of Gerontius'. The Pet Shop Boys' 'This Must Be...' obviously had a much more grandiose scale with the larger speakers but there was also resultant finer resolution and timing. The ebb and flow was wonderful where the bass lines were merely deep and enticing.

3) WATERFALL VICTORIA FLOORSTANDER (£22,000) With a manufacturer's quoted specification of 90dB sensitivity and 40mmpm impedance, they never posed a problem with the Densens as they were the easiest to drive of the three speakers used (utilising the B-330's quoted 240W into 40mmpm rating). On Elgar's 'The Dream Of Gerontius' there was vivid dynamism to the orchestration as the crescendos arrived and departed. Also - finer resolution and weight due to the larger speaker cabinet/amp combination. The music was more revealing deliciously unravelling extra depth and decay to both vocals and instruments. The orchestra and vocal crescendos were handled with consummate ease and had no subjective distortions, colorations or dynamic resistance. The Densens feeding the Waterfalls also revealed first-rate acoustical textures and timbre with 'The Dream Of Gerontius'. The Pet Shop Boys' 'This Must Be...' obviously had a much more grandiose scale with the larger speakers but there was also resultant finer resolution and timing. The ebb and flow was wonderful where the bass lines were fluid yet deep and communicative. Johnny Marr's beautiful guitar melodies were now awesome, resonating beautifully through the musical structure and the vast but underlying depth and decay to both vocals and instruments. The orchestra and vocal crescendos were handled with consummate ease and had no subjective distortions, colorations or dynamic resistance. The Densens feeding the Waterfalls also revealed first-rate acoustical textures and timbre with 'The Dream Of Gerontius'. The Pet Shop Boys' 'This Must Be...' obviously had a much more grandiose scale with the larger speakers but there was also resultant finer resolution and timing. The ebb and flow was wonderful where the bass lines were fluid yet deep and communicative.

I guessed the B-330 was an amplifier in the zero-feedback mould preferred by Densen, since it not only produces obvious distortion in times when this is unnecessary, but the distortion it produces importantly remains stable in level, pattern and spectral make-up; in other words the amp's transfer function alters little. It's an unusual but important feature. Into an 8ohm load the B-330 power amp consistently produced 0.05% distortion, comprising equal levels of second and third harmonic, right across the audio band and at any power level. Unlike most amplifiers, level did not rise toward high frequencies. This increased to 0.15% into 4ohms, again under all conditions. Obviously, these levels are higher than usual, but they are still acceptable, especially if as Densen claim they are achieved without the feedback normally applied to correct innate non-linearity.

Bandwidth was wide, stretching from 12Hz (+1dB) up to 90kHz. A peculiar peak at 2kHz was likely caused by servo-circuits or related filtering, an odd effect and not much wanted either. Producing 136W into 8ohms and 240W into 4ohms the Densen B-330 has plenty of power.

The B-250 preamp and B-330 power amplifier measure well. This is a system that will likely deliver a smooth, stable and dimensional sound. NK

**VERDICT**

**DENSEN B-250 PREAMPLIFIER** £3,000

**DENSEN B-330 POWER AMPLIFIER** £3,000

Densen

- **£1,695**
- **£2,000**

**FOR**
- B-330; compact powerhouse
- B-250; sophisticated and transparent
- eye-catching aesthetics

**AGAINST**
- price

**ENGINEERING**

Densen uses silver solder and surface mounting with a precision of 0.02mm, in an artificial nitrogen atmosphere for durability. The printed circuit boards are made of Teflon for longevity and are double-sided, which, "have the signal on one side, and the ground-plane on the other, thereby optimizing interference free signal transfer". Densen also use Dense Mass Current Distribution (DMCD). They say when using the DMCD circuit, the current is at all times present at the output terminal. The result of this is extremely low output impedance for a non-feedback amplifier. This makes the amplifier extremely fast and precise, while retaining unlimited control with the speakers. Ever since the DIN-10 all Densen output stages have been engineered without global or local feedback. For more details on zero feedback see our September 2005 issue p25, or visit www.densen.com.

**MEASURED PERFORMANCE**

I guessed the B-330 was an amplifier in the zero-feedback mould preferred by Densen, since it not only produces obvious distortion in times when this is unnecessary, but the distortion it produces importantly remains stable in level, pattern and spectral make-up; in other words the amp's transfer function alters little. It's an unusual but important feature. Into an 8ohm load the B-330 power amp consistently produced 0.05% distortion, comprising equal levels of second and third harmonic, right across the audio band and at any power level. Unlike most amplifiers, level did not rise toward high frequencies. This increased to 0.15% into 4ohms, again under all conditions. Obviously, these levels are higher than usual, but they are still acceptable, especially if as Densen claim they are achieved without the feedback normally applied to correct innate non-linearity.

Bandwidth was wide, stretching from 12Hz (+1dB) up to 90kHz. A peculiar peak at 2kHz was likely caused by servo-circuits or related filtering, an odd effect and not much wanted either. Producing 136W into 8ohms and 240W into 4ohms the Densen B-330 has plenty of power.

The B-250 preamp and B-330 power amplifier measure well. This is a system that will likely deliver a smooth, stable and dimensional sound. NK

**Power**

<table>
<thead>
<tr>
<th>CD/tuner/aux.</th>
<th>136watts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency response</td>
<td>12Hz - 90kHz</td>
</tr>
<tr>
<td>Separation</td>
<td>91dB</td>
</tr>
<tr>
<td>Noise</td>
<td>-92dB</td>
</tr>
<tr>
<td>Distortion</td>
<td>0.05%</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>40mV</td>
</tr>
<tr>
<td>dc offset</td>
<td>15/17mV</td>
</tr>
</tbody>
</table>
JET Stream

Bristling with trick technology, Elac’s FS607 X-JET is an extremely interesting floorstanding loudspeaker, but does it fly? David Price stands by...

Forgive me this gripe, but the trouble with most high-end loudspeakers is that, aside from swinner cabinetry and better build, they bring precisely nothing new to the party. In the same way that a BMW 7 Series automobile is essentially a 3 Series automobile on steroids (i.e. bigger with more gadgets), so your average £4,000 hi-fi box will have little or no true technological innovation over something at one tenth (or less) of the price.

Specifically, whereas a £400 floorstander may have a vinyl wrap box (if you’re unlucky), a cloth dome tweeter, an off the shelf mid/bass and cheap passive componentry in the crossover; a £4,000 design will have a nice real wood veneered box, a cloth dome tweeter, a slightly better off the shelf mid/bass and, ermm, only slightly less cheap passive components in the crossover. Oh, and if you’re lucky it might be ‘two and a half way’ instead of two — whooppee do!

Of course, the purveyors of these pinnacles of audiophile perfection would argue that the price premium reflects the time spent listening to the speaker; which is all well and good, but it isn’t the number of ‘man hours’ that justifies the price tag, it’s the sound — and very often this is such that those myriad ‘man hours’ seem grossly misspent.

If I were spending several thousand pounds on such a thing, I would expect — nay insist — that it either rewrote the rule book, or at least remade it an altogether more refined form, yet there are surprisingly few products which do. Wilson Benesch’s use of carbon fibre is genuinely innovative, Quad’s electrostatics employ ‘polarised cling film’ instead of the conventional ‘magnetised coil plus plastic megaphone’ arrangement, and Martin Logans mix the best of both worlds with reasonable success - and that’s it...

Indeed, these aside I can’t think of any other designs which are of any particular note. Rather, it’s all just fiddling with boxes and bits of wire, with varying degrees of success. I’m not denying that some conventional speakers aren’t truly superb sounding (Mistra’s w22 and Mortaunt Short’s Performance 4 bring two examples of brilliantly finessed conventional designs), but they’re the exception rather than the rule.

Well now there’s Elac’s FS607 X-JET to join the select few technologically interesting transducers. This isn’t radically different in the way that Quad’s ESL-988 or TDK’s S-80 are, but it’s still innovative enough to make it a genuinely significant design. As any speaker designer would remark here though, whether or not this translates to a special sound or not is another question altogether!

THE TECHNOLOGY

Elac is a particular favourite of this magazine, thanks to its propensity for ribbon tweeter technology. Ribbon tweeters are still surprisingly rare considering the obvious benefits they bring in terms of treble quality, but maybe this isn’t so unexpected when you remember that conventional dome tweeters are ten a penny and ribbons are not. Essentially, their light weight makes for a fast, finested sound that’s far less likely to ‘beam’. This means a more ‘phase coherent’ speaker, better integration between treble and mid/bass drivers and a sweeter and more delicate sound.

Elac has been using ribbons for a good long time now, and speakers such as the £900 FS207.7 use it to great effect, making for a warm yet subtle sound that’s quite different to all its other price rivals. The FS607 X-JET you see here is more than ‘just’ a 207 with go-faster stripes however.

First, it’s a three way (or ‘three and a half’ to be strictly true), which means it runs a separate woofer, midrange driver and tweeter in each speaker box. This, whenever properly implemented yields substantially superior results to a two way, not least better linearity, superior power handling, and a wider and more even frequency response. Of course, three ways are harder to do properly, which is why the practice is rarely as good as the theory. The 607 is obviously very well implemented however, not least because it introduces a new ‘coaxial’ tweeter and midrange unit, which uses — yes, you’ve guessed it — ultra lightweight honeycomb diaphragm ribbons!

Personally speaking, I’ve never seen such a thing, and it promises dramatic benefits. First, its dispersion should be far better than two separate domes (or ribbons; for that matter) because the amplitude and phase of the sound waves run linear and frequency-independent over 180 degrees from the front baffle. Effectively it’s a point source, like Tannoy’s Dual Concentric. Elac call it the X-JET, and it’s what makes the speaker truly exotic. The lightweight 50mm and 105mm diaphragms are driven by a 78mm moving coil, using coppered aluminium flat wire,
woofers, which are aluminium sandwich designs, each with a double rubber surround. The 37mm moving coil is wound on a capton bobbin by means of heat-resistant wire. A homogeneous magnet field is created by magnets with ferrite rings that meet tight tolerances and they're done in-house. All these results in very dry bass, says Elac, and increased bass levels of up to 28Hz. The X-JET coaxial tweeter/mid-range unit in significance is the elaborate metal cabinet. So many rivals use variations on the MDF theme, which isn't ideal and needs serious amounts of damping to tame, whereas this speaker boasts an elaborate extruded aluminium affair, with aluminium casting and MDF with horizontal and vertical internal tension rods. Despite being quite tall, it's very dead when struck with the knuckles and it's exquisitely well finished to look giving the FS607 a truly elegant appearance. It's heavy too, at 35kg apiece.

The Elac FS607 X-JET is certainly an interesting loudspeaker, via digital and analogue sources, and found them nearer less than extremely revealing — in many respects. You're certainly going to get away with a bad front end, and it's also claimed that the Elacs need concentrated running in and meticulous positioning and cable matching in order for them to produce an even half-decent sound; they're certainly not something you can 'fit and forget'. They also work best when they've had a serious lashing with solid-state power, giving those metal drive units proper time to warm up.

Yet despite publisher Noel Keywood and I using all the oldest tricks in the book, we couldn't quite get the Elacs to sound as we'd hoped. On every song and with every singer, they sounded beautifully finessed, very delicate and (apparently) detailed, extremely composed and ordered. Image placement was superb, as was reproduction of the recorded acoustic. In a way, there was sound was extremely electro-static-like, being so tidy and clean. But there was one thing that the Elacs never did during the entire auditioning period — boogie. This isn't a cardinal sin, it's just that the Elacs are not natural rock loudspeakers, in the same way that the original Quad ESL-57s aren't. Still, there are myriad aspects of the FS607's sound which make them genuinely rewarding to listen to with a whole range of programme material. For example, Gabrielle's 'There She Goes' was a joy; the superb midband/tweeter integration makes them brilliant on female vocals, which is - of course - one of the hardest feats for any loudspeaker. Gabrielle's vocals were deliciously husky yet smooth and velvety with it; the Elac's conveyed the 'grain' of her voice brilliantly, showing its innate 'roughness' yet never becoming harsh. This famous treble/salmon duo grabbed the Elacs by the electro-mechanical equivalent of their 'short and curles'. And from then on, not a word of complaint was heard again.

"few loudspeakers take into the studio and show you all four walls..."
THE SOUND GALLERY

01494 531682
65 Castle Street, High Wycombe Bucks
email: home@soundgallery.co.uk
www.soundgallery.co.uk

definitive audio

Definitive Audio creates a quality of musical experience that is peerless. Our service is bespoke, our philosophy is unique and our results are celebrated the world over.

We use a selection of the most artful and ingenious creations, including the emotionally persuasive and sublimely beautiful KSL Kondo amplifiers and Living Voice loudspeakers.

New Western Electric 300B valves available from stock.

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Sale</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naim CDS - 2003</td>
<td>£795</td>
<td></td>
</tr>
<tr>
<td>Naim NAC 112 - 2003</td>
<td>£395</td>
<td></td>
</tr>
<tr>
<td>Naim NAP 150 - 2003</td>
<td>£445</td>
<td></td>
</tr>
<tr>
<td>Naim Flatcap - 2003</td>
<td>£345</td>
<td></td>
</tr>
<tr>
<td>Border Patrol Control Unit</td>
<td>£1000</td>
<td>£1700</td>
</tr>
<tr>
<td>Audio Note Japan M7 pre-amp - line only</td>
<td>£3000</td>
<td></td>
</tr>
<tr>
<td>Musical Fidelity A2 Integrated - very nice</td>
<td>£260</td>
<td>£500</td>
</tr>
<tr>
<td>Art Audio PX25 - 5watts</td>
<td>£3000</td>
<td>£4000</td>
</tr>
<tr>
<td>Krall KAV-300L</td>
<td>£1900</td>
<td>£3000</td>
</tr>
<tr>
<td>Audiolab 16AL Ltd P2.10 pre + mono - perfect condition</td>
<td>£400</td>
<td></td>
</tr>
<tr>
<td>Sugden Masterclass integrated - nearly new</td>
<td>£2500</td>
<td>£3300</td>
</tr>
<tr>
<td>Heco Model 1 CD player</td>
<td>£700</td>
<td>£1300</td>
</tr>
<tr>
<td>Benz Micro H phono cartridge - 5 minutes use - perfect</td>
<td>£1400</td>
<td>£1800</td>
</tr>
<tr>
<td>AVT 9.2000 Mk3 integrated amp</td>
<td>£400</td>
<td>£1000</td>
</tr>
<tr>
<td>Border Patrol P21 - mahogany - Integrated - 11 months</td>
<td>£3800</td>
<td>£4800</td>
</tr>
<tr>
<td>Audio Mecca Sphelcto CD transport</td>
<td>£1200</td>
<td>£2500</td>
</tr>
<tr>
<td>Canany 608 (blue) line integrated - grea sound for low dough</td>
<td>£1900</td>
<td>£3300</td>
</tr>
<tr>
<td>Canary 303 (110v) - new - fleet mignon</td>
<td>£3800</td>
<td>£7200</td>
</tr>
<tr>
<td>Canary 309 - very nearly new - beef wellington</td>
<td>£4800</td>
<td>£6000</td>
</tr>
<tr>
<td>Canary 601 (110v) line pre-amp - lemon tarte</td>
<td>£2500</td>
<td>£4500</td>
</tr>
<tr>
<td>Cyrus CD8 CD Player - 2 years old</td>
<td>£900</td>
<td>£1000</td>
</tr>
<tr>
<td>Acolite pre-amp - very new - very good condition - beautifully made - OK</td>
<td>£900</td>
<td>£2800</td>
</tr>
<tr>
<td>Thomas Sheu turntables (80mm platter with 12&quot; arm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(50mm platter with 9&quot; arm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugden A21a - titanium - classic integrated</td>
<td>£600</td>
<td>£1050</td>
</tr>
<tr>
<td>Vitavox RH330 Mid range horn - cast</td>
<td>£400</td>
<td></td>
</tr>
<tr>
<td>Revolver 45 loudspeaker - cherry - unfinished</td>
<td>£500</td>
<td>£1200</td>
</tr>
<tr>
<td>Revolver 45 loudspeaker - grey + maple</td>
<td>£400</td>
<td>£800</td>
</tr>
<tr>
<td>Kimber Select inter-connect - 0.75m - new - in elaborate plastic box</td>
<td>£250</td>
<td>£500</td>
</tr>
</tbody>
</table>

Tel: 0115 973 3222 Fax: 0115 973 3666
internet: www.definitiveaudio.co.uk email: shout@definitiveaudio.co.uk

THE SOUND GALLERY

01494 531682
65 Castle Street, High Wycombe Bucks
email: home@soundgallery.co.uk
www.soundgallery.co.uk

MICHELL ENGINEERING

The Michell Odyssey 2004
Limited Edition Turntable

Based on the classic Gyrodec, the Limited Edition Michell Odyssey 2004 will be produced in a numbered series of just 100 pieces supplied in an all black finish, with a black acrylic base, added clear acrylic spyder to give a second level of isolation. The signature weights are in a nickel silver finish. The turntable comes complete with record clamp, black TecnoArm "A", and matching black HR Power Supply. With its striking finish, attention to detail and outstanding sound quality it will only be a short period of time before the 100 units are snapped up.

MICHIEL ENGINEERING

J A Michell Engineering Ltd
2 Theobald Street, Borehamwood,
Hertfordshire, England, WD6 4SE
Telephone: 020-8953 0771
Fax: 020-8207 4688
www.michell-engineering.co.uk
after time. Steve Earle's *Esmeraldas* few loudspeakers take you into the studio and show you all four walls with riflebolt precision. The Elacs of the recorded acoustic, with all so well. There was a superb sense the strummed steel string guitars conveyed the speedy transients of insu untents in the mix located courtesy of Denon DCD-2900 DVD once veering into harshness. brilliantly, sounding upfront yet never seemed dramatically better. of Night Owl*, showing the superb straight for Gerry Rafferty's B turntable and things suddenly got.to make a decent stab at playing weren't exactly dancing, but they'd animated that through the Denon rhythms too, sounding much more recording. The speakers also began to show a certain lack of basslines of Sly Dunbar, the Elacs offering a wide open redoubtable rhythm section of Sly Compass Point, Nassau. Yet the high superior in this respect). 

**CONCLUSION**

If you are a Motorhead or Massive Attack fan, these are not the speakers for you. They don't exactly enjoy hitching up their skirts and dancing, and you'll never be bowled over by massive, visceral thump or expansive soundstaging either. However, lower of simple acoustic playing, female vocals and indeed classical music will appreciate their superb imaging, excellent treble-frequency integration, smoothness and evenness right across the frequency band, plus the superb finesse that only ribbons done properly can give. So the advice is, as always, try before you buy!

**VERDICT**

Technically impressive loudspeakers with a superbly delicate and seamless sound, but heavily music dependent so careful auditioning essential.

**ELAC FS 607 X-JET £ 5,000 Elac**

+44 (0)800 652 5002

www.elac.com

---

**MEASURED PERFORMANCE**

Elac's X-Jet ribbon drive unit, a souped up version of the standard Jet which has always worked well, provides this big floorstander with a smooth response right across the middle and high frequency regions, from 630Hz up. This gives it a fair amount of work to do, but it also makes the crossover point less of a problem in phase behaviour. The slight upward trend in output toward 16kHz may make itself known with bright CDs, but over the ear's most sensitive regions the speaker actually slopes down a little and may sound warm in balance. There's a marked increase in output below 500Hz, corresponding with a related step down in impedance, as expected, our impedance trace shows. This will push the lower midrange region forward a little, adding warmth and some body to the sound. The FS607 maintains output down to 31Hz, lower than most rivals. Its true low bass performance depends upon room positioning. Listening showed the FS607 had slightly soft bass, with plent of deep heft. Not surprisingly, with this much bass sensitivity was high at 91dB, impedance measuring 5ohms. The bass driver is a 4ohm unit.
The common perception is that valve amplifiers are funny, archaic things. They could be likened to the Orangutan, an endangered species kept visible by a few people harbouring an interest others don’t share. That’s how my non hi-fi friends seem to see it, at least. To me the valve is no archaic device, so much as a good, clean way of amplifying an audio signal. T+A, you might think, also see it this way. Better, they have set out to prove it in the V10 amplifier by cossetting a set of valves in a web of solid-state support circuitry, all set in boutique chassis work, to produce a fairly astonishing modern valve amplifier. Heavens, it even has a microprocessor on board - this is no Orangutan...

The V10 looks to be a potent package. It delivers a healthy 80W per channel, T+A claim, “without connecting output valves in parallel”, so the handbook’s introduction tells us. Sure enough, the compact chassis, just 44cm wide, has just four output valves, each marked JJ EL509 clearly in large red letters, This means there are two push-pull pairs, one pair per channel. It’s a compact arrangement and, when it comes to replacement time, a cheap one too. I spoke to Edicon about this unusual valve and, apart from receiving a long dissertation on the history and politics of manufacturing in East Europe - something you just don’t get with transistors! - I learnt that a pair costs just £54.85 inclusive of VAT from them. Not bad, considering the amplifier will set you back a cool £4,599.99. Or, perhaps you might say, disproportionately cheap, considering they are the centre piece of the show. It’s a point I’ll come back to.

T+A is solidly built and beautifully finished by a company based in Herford, Germany. They’re proud it won a European 2004-2005 High-End Award, and just looking at it you can see why. The design borders on ornate, with individual perforated valve covers that offer protection against burns, a tinted acrylic cosmetic cover, spun transformer cases possessing a superbly smooth matt aluminium finish and a natty front display that lights up with fluorescent red letters.

The fit of the rotary controls in their recesses is near perfect - not something most manufacturers would be prepared to spend money on, as this degree of precision is costly.

Being large, heavy things by necessity, valve amp chassis tend to be expensive in any case. The T+A chassis really is very complex, especially so as it has various anti-vibration devices, including an internal steel chassis and sprung feet. Much like my own 300B valve amp this one is massively heavy, most of the weight being in the mains transformer, hiding beneath the big central can, and the two output transformers in the smaller cans either side. Behind six smoothing capacitors. Unlike my amplifier and many higher-end valves, though, T+A have not used...
choke smoothing. By eliminating high frequency power supply noise, choke smoothing helps give the darker sound across the midband that valve amps so commonly display, but it also worsens regulation a little, softening bass. I expected the V10 to possess a more of these controls I would guess they are rotary encoders, rather than motor driven mechanisms. All the same, with two ECL82s and a pair of ECC99s there's enough onboard for all gain to be supplied by valves, rather than transistors. T+A do say no 'amplification' comes from transistors.

**UP IN SMOKE?**

T+A fit a slew of start up options, most of which in my experience are not strictly necessary. Whilst all the talk about protecting the valves is laudable, it isn't altogether realistic or helpful and to be frank this has to be a generalisation as a result, taken with well defined views on other things being equal. There are so many variables to consider in any amplifier, but especially with the T+A. For a few seconds at least, or perhaps longer, but how much longer is negotiable with the man in charge perhaps longer, but how much longer is negotiable with the man in charge of. For a few seconds at least, or perhaps longer, but how much longer is negotiable with the man in charge of. There's a bang, a puff of smoke and you wake up. Extreme reliability is a dream that doesn't happen from a spectrum analyser. So what happened?

Valves are difficult to manufacture with consistency and batches tend to go wrong. It was valve failure that precipitated larger circuit failure in my first two V10s. That valves fail is a fact of life that any amp designer must cope with, but in the V10 this did not work. A common failure mode is the electrodes to heat, warp, touch and short; internal clearances are miniscule. When electrodes touch it's easy to introduce transistors to the delights of 450V or so and they react much like you or I - expire! That this is likely to happen is fairly well known. Solid-state and valves can be mixed I'm sure, as nowadays high voltage protection of delicate transistors is both needed and well understood, but my first two V10s weren't very successful in this respect...

T+A state the V10 "incorporates completely newly developed valves in the form of the EL509MHz" that are "the key to the V10's substantial output power of 80W." A statement like this is enough to raise my eyebrows and I'm sure it would generate some steam at EAR where the PLS09 has been used for many years, followed by successor KT90 which is similar in type - a high power pentode. The EL509MHz, a unique variant of the PLS09, is produced by JJ of Slovakia, valve suppliers Edicron told me. They also confirmed that, yes, it was a batch of KT88s from the factory we once rejected for World Audio Design amplifiers because of their failure rate. All the same, Edicron said, JJ valves are generally considered reliable. My third set has held up well under weeks of continuous running of the V10. The UK distributor for T+A was fairly candid about this, admitting that early V10s did have problems, but they had been cured and T+A were now happy about the amplifier's reliability.

To get 80W from a single pair of compact power pentodes is...
"The best tonearm I've heard"

Winner of Stereo Times magazine Most wanted component of 2004 award

"A new benchmark for musical communication"

"One of the truly special products I've reviewed in the past 18 years"

The new generation of tonearms from Origin Live have won admiration and rave reviews across the world for good reason - these arms better the best by a significant margin. Whatever your current arm, you can at last treat yourself to a serious upgrade. Why not arrange for a demonstration now.

Tonearm Models

Conqueror - £2500
Illustrious - £1570
Encounter - £970
Silver - £599
OL1 from - £124

Demonstrably better

ORIGIN LIVE
Tel/Fax: +44 02380 578877
E-mail: info@originlive.com

ORIGIN LIVE

Ultimate performance for your system

"The best musical results of any turntable I've ever heard, regardless of price."

Since I've been listening to turntables professionally for 32 years and am aware of the pitfalls of ultimate proclamations, I hesitate somewhat to make this statement. Nevertheless, it is true. The level of musical communication available from the Illustrious/Aurora Gold is in a class by itself. It sets a new reference.

STEREO TIMES on the Aurora gold turntable & illustrious tonearm

Full information on web site www.originlive.com
adjusted! My handbook said much about assessing bias level using the red display panel, but nothing about how to adjust it, which was curious. I was missing a separate sheet the distributor told me. There are two small adjusters on the underside of the amplifier. Because it is so heavy these aren’t easy to use. It’s more common to make the adjustment easily accessible on fixed bias amps., even though bias adjustment is an occasional requirement, rather than a regular one.

The V10 integrates into a modern hi-fi system easily enough. It has an Ohm / Ohm switch at rear for matching to loudspeakers, these days best set to 4 ohms initially. There’s no phono stage but there is an input marked phono, to which an external phono stage can be connected. This is in effect a normal line input, of which there are four, in total, plus a set of tape in / outs. Sensitivity is high at 250mV, enough for old cassette decks and tuners to be used. The loudspeaker posts accept 4mm plugs axially, or bare wires.

The remote control switches the V10 on quietly. Everything about it is smooth and slick, where my own 300B is, for example, the opposite, it’s big, industrial duty switches and components being clunky. Funny how the V10 seems less intimidating as a result; it has a certain apparent ease about it that’s relaxing and will be appreciated by its intended audience I suspect.

SONIC BOOM
Measurement had shown the V10 meets T+A’s performance claims. It truly does have wide bandwidth and low distortion – and that means right across the audio band. This guarantees a clean, precise sound, and that was very apparent when using this amplifier. It has a richly detailed and forward presentation, with strong presence between the loudspeakers. The stage is firmly established and painted on a generous canvas in best valve amplifier tradition. Most importantly though, there was that strong sense of dimensionality to images that makes the valve sound seem alive and real – and very engaging too.

Not for the V10 the flat and boring presentation of a high feedback, solid-state design stuffed with cheap components. It also has an engaging sense of dynamic that is really enjoyable. Again the amplifier capitalises upon the strengths of valves in this respect. Put all this together and you have an amplifier that’s immediately engaging and very ‘obvious’ in what it achieves. The V10’s sound is no wilting rose. Much like its styling, what you get sonically is a strong statement that’s going to impress you, your friends and family which, quite frankly, is likely to be important after spending £4.5k.

Valve amplifiers don’t commonly present like this; the common perception is that they are soft and warm of course, but this is due mainly to technical limitations the V10 overcomes. This amplifier is forward, forceful, immediate and dynamic, hardly surprising I feel that it should capture the V10.

"it is real audio dynamite, because it makes music so engaging..."
NEW FROM MUSICAL FIDELITY.
A5 SERIES.
X SERIES ACCESSORIES. X SERIES COMPONENTS.
KW INTEGRATED, PREAMP AND POWER AMP.
M1 TURNTABLE.
HEARING IS BELIEVING.

FOR DETAILS OF YOUR NEAREST STOCKIST, RING 020 8900 2866 OR VISIT MUSICALFIDELITY.COM
from any good valve amp. Soft bass from this amplifier is both tight yet own) would boom a little on some deeper bass notes. Otherwise bass from this amplifier is both tight yet good for 3,000 hours or failure rate moves off the scale. Only the best samples will survive. Audio Research weed out weak valves by burning them in, to avoid this early failure mode, and I know that top UK designers insist on more conservative running than that used in the V10, EAR use two KT90s - a similar power pentode - for 70W, for example. All the same, valve failure is a fact of life so an amp must fail safe and not destroy itself. T+A’s importer told me early unreliability problems have been overcome though. I have no experience of the J) EL509 so perhaps it can be worked so hard. Best to look at the Warranty being offered to cover failure.

I’m sure there are a lot of people out there who’d really appreciate the sound of this amplifier, together with its ease of use and sassy styling. Personally, I thought it was real audio dynamite, mainly because it makes music so engaging. At the end of the day this still isn’t a property in consummate abundance within hi-fi. So this is a true hi-fi amplifier, worth listening to and worth the asking price. As such, it’s no monkey, but a product that’ll bring real enjoyment. So long as it keeps working ...

**MEASURED PERFORMANCE**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity</td>
<td>Noise (IEC A)</td>
<td>Power</td>
<td>Distortion</td>
</tr>
<tr>
<td>200mV</td>
<td>0.15%</td>
<td>80Watts</td>
<td>0.15%</td>
</tr>
<tr>
<td>12Hz-48kHz (Hz)</td>
<td>73dB</td>
<td>-</td>
<td>Sensitivity</td>
</tr>
<tr>
<td>Frequency response</td>
<td>Noise (IEC A)</td>
<td>-</td>
<td>200mV</td>
</tr>
<tr>
<td>12Hz-48kHz</td>
<td>93dB</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Separation</td>
<td>Distortion</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>73dB</td>
<td>0.15%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Noise (IEC A)</td>
<td>Sensitivity</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>93dB</td>
<td>200mV</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Distortion</td>
<td>Sensitivity</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>0.15%</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>200mV</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

measures so well sorted out. These old recordings commonly sound jumbled through lesser amps, but not the V10. By delving right into vocals so strongly, the V10 manages to be as good as it gets in terms of teasing the emotion out of music. This is no boring listen, nor a soulless one. It’s an amplifier that caught my senses and I really enjoyed it.

Using low cost valves in an expensive amplifier raises obvious questions, as I mentioned earlier. As the valves are central to signal processing, real fidelity demands the best, and the best don’t come for £54.85 per a matched pair. More like £500 for a matched pair of 300Bs from Western Electric. Personally, I prefer higher cost valves in lower cost casework, but then high fidelity at this end of the market really starts to become a matter of taste, rather than an absolute. Notions of rightness get spurious. The V10 measures so well, after all, that T+A can claim with justification that it is every bit as accurate and pure in its sound as any rival, even those using far more expensive valves. The sheer purity of its sound will convince you about this, if you can get to hear it. And low valve cost means low running costs, as power valves are good for 3,000 hours or so, before replacement is necessary.

On reliability, I still have reservations. My third sample worked fine but squeezing 80W from one pair of power valves really is pushing your luck. I know from my own experience that if you run a valve at its rated maximums, failure rate moves off the scale. Only the best samples will survive. Audio Research weed out weak valves by burning them in, to avoid this early failure mode, and I know that top UK designers insist on more conservative running than that used in the V10, EAR use two KT90s - a similar power pentode - for 70W, for example. All the same, valve failure is a fact of life so an amp must fail safe and not destroy itself. T+A’s importer told me early unreliability problems have been overcome though. I have no experience of the J) EL509 so perhaps it can be worked so hard. Best to look at the Warranty being offered to cover failure.

I’m sure there are a lot of people out there who’d really appreciate the sound of this amplifier, together with its ease of use and sassy styling. Personally, I thought it was real audio dynamite, mainly because it makes music so engaging. At the end of the day this still isn’t a property in consummate abundance within hi-fi. So this is a true hi-fi amplifier, worth listening to and worth the asking price. As such, it’s no monkey, but a product that’ll bring real enjoyment. So long as it keeps working ...
The colouration’s in the finish

Not in the music
If hi-fi magazines have one major flaw, it is that they conventionally review items of equipment singly, rather than in a system. Despite protestations by reviewers that they routinely mention partnering equipment used in reviews, the reader is usually lured into the view that the ‘goodness’ (or otherwise) of an amplifier or loudspeaker is absolute. You’d think, wouldn’t you, that taking a selection of ‘5 star’ rated equipment and putting them together would make an unbeatable system? Yet things often go wrong with this approach — as readers’ letters often testify — and the results can be truly awful. Why this should be — and where the secret lies — is all down to the ‘interface’...

As any good hi-fi dealer will tell you, there are synergies between pieces of equipment, and cables, that seem almost magical in the way they allow the performance to blossom beyond the capabilities of the individual items. Similarly well known and liked favourite brands sometimes just don’t seem to like one another. Actually there’s no magic in hi-fi. There are rational explanations for everything we hear, even if it is sometimes beyond our complete understanding.

DIGITAL DEFICIENCIES

We tend to think of the line input stage of an amplifier as a straightforward ‘piece of wire with gain’, with only the bandwidth and distortion associated with the gain defining its performance. This view is typical of the simplistic attitude to much hi-fi analysis. Let’s see, for example, what happens when we plug a CD player into the line input of your average amplifier. You might think that the output from a CD player is fairly benign, but far from it. Although the brick wall filtering cuts analogue audio output at 20kHz (which is where it is generally agreed that human hearing tails off), the effects of filter ringing, aliasing and quantisation ‘noise’ can extend far up in the ultrasonic region. This noise may actually get worse with some types of noise shaping or the use of 1 bit DACs — there’s no clear cut method of telling, it’s all down to the capabilities of the design and the understanding of the designer(s).

But why should this be a problem? Well, if all amplifiers were carefully filtered only to allow ingress and amplify within the audible frequency range then it wouldn’t be of any significance. At least one well known and highly regarded range of amplifiers follows this dictum, can you guess who? The problem is amplified (pardon the pun) by the insistence by many designers that their amplifiers should be excessively wideband, probably because of the concerns over the audibility of some types of filtering. The blame can also be laid at the words its slew rate should be well in excess of that required to accurately amplify the desired frequency range before feedback is applied. As we shall see later, feedback is usually applied to correct amplifier faults and actually causes more problems than it solves. When the amplifier stage is slew rate limited and uses feedback to reduce measured distortion, a burst of ultrasonic noise can send the amplifier into oscillation. By itself this might not be audible, but its effects are. The amplifier may momentarily be driven into clipping, sending ripples of distortion throughout the audible frequency range, and passing pulses of noise down the power supply lines to affect other amplifier stages.

The result is a gritty, hard and fatiguing sound by which the ‘sound’ of CD is often characterised. Remember that older amplifier designs are more likely to be upset by itself.
Soundcare® Super-Spikes

What are Soundcare® Super-Spikes?
The Soundcare® SuperSpike is an all new design, an all in one spike foot. This unique construction eliminates the most common problem experienced when using a conventional spike: damaged surfaces. The construction is based on a high quality spike fitted with a custom designed base plate, all integrated in a plastic housing. This allows the user to move the equipment without making scratches and scars to the surface.

Why use Soundcare® SuperSpikes?
When the weight of your Hi-Fi equipment is concentrated onto a small area, the weight per square unit area increases enormously, providing better contact with the surface on which the unit stands. This results in an overall improved sound stage and increased control in the lower frequency register.

Soundcare® SuperSpikes reduce disturbing vibrations and prevent low frequency noise from transmitting to other rooms.

A Soundcare® SuperSpike loaded with a weight of 12.5 kg produces a pressure of more than 6,200 kg per sq. cm!

Quotes from HiFi magazines:
"... Marvellous... The Soundcare products are just about the only worthwhile and affordable game in town." - Pete Christie - HiFi+ Magazine
"Definitely recommended" - HiFi Choice

"Conclusions:... I can't help but say these are, in my humble opinion, the best spikes around, bar none." - Lucio Cadeddu - http://www.tnt-audio.com

The ideal upgrade for Hi-Fi and AV equipment. Suitable for use on Amplifiers, CD & DVD players. Also, ideal for loudspeakers and subwoofers, will fit REL, MJ Acoustics and Ruark. And of course they fit the BK XLS200 and Monolith.

For more details please view our website at: www.bkelec.com/superspikes

Distributors Required

BK Electronics, Unit 1, Comet Way, Southend-On-Sea, Essex. SS2 6TR
Tel: 01702-527572 Fax: 01702-420243 email: sales@bkelec.com

Full no quibble money back guarantee

Power Cords  •  Mains Blocks  •  Interconnects
Speaker Cables  •  Mains Filters  •  Accessories

Hi-Fi World & Hi-Fi Choice reviewed power cords

WWW.KRYSTAL-KABLES.COM
Tel: 01579 362189

---

NOTEWORTHY AUDIO
hi-fi by enthusiasts

Below is a small selection from our range of carefully chosen equipment

Denon DL-103 MC cartridge. The 103 has been in production since 1963, and for good reason - its performance is legendary throughout the world. Probably the best value cartridge available today at just £100.

Clearaudio Emotion The Clearaudio Emotion turntable package includes the Satisfy tonearm and the Classic cartridge for just £555 and offers astonishing value for money.

The Something Solid XR has become our reference equipment support, its novel use of balsa end shelves and tensioned shelf suspension give it a neutral presentation that lets equipment perform without added artifice. 4 tier version available from £600. (Stop press: new 'Economy' version now available from just £300)

Note products cables: Exciting new range of high quality cables which starts with the £350 InterNote (pictured left) and extends to the PureNote at £750. These cables use only the finest materials including pure silver conductors and natural cotton insulation.

Audion Silver Note One: This is a specially commissioned amplifier exclusive to Noteworthy Audio. It uses a single 2A3 directly heated triode per channel in an ultra purist single ended zero feedback design. It produces 4 of the finest watts available, if you have high efficiency speakers you need to hear this amplifier remarkable amplifier: £2,500

Music first Audio TVC pre amplifier. Instead of using resistors to control the volume the TVC uses stepped transformers. Incredible transparency without any of the dynamic compression found in conventional passive preamplifiers. Copper wired version: £1,500. All silver wired: £2,750

Audio Note lo 1 MC cartridge. Surely one of the best cartridges in existence, the lo uses Alnico magnets and pure silver wires to extract everything from your LP's in the most musical way possible: £1,595

Noteworthy Audio
36 Buckingham Street, Aylesbury, Bucks, HP20 2LH
Tel: 01296 422224
www.noteworthyaudio.co.uk

WE ARE
TO DIFFERENT.
Superb products from around the World
Quality and Value!

Eastern Electric 520

Edge Amplifiers

Green Mountain Audio

JAS Audio

Micromega

Elac

6 Grosvenor Gardens, St. Nect, Combs, PE19 1DL
Paul Letteri - Proprietor

Located in Cambridgeshire

Telephone: 01480 216 039
Web: www.hifidelityaudio.co.uk

---

KRYSRAL
KABLES

Pure sound...

STRATOS solid silver power cord 1m £145.00

JUPITER solid silver power cord 1m £385.00

TITAN high power entry level cord. 1 metre £72.00

Full no quibble money back guarantee

POWER CORDS  •  MAINS BLOCKS  •  INTERCONNECTS
SPEAKER CABLES  •  MAINS FILTERS  •  ACCESSORIES

Hi-Fi World & Hi-Fi Choice reviewed power cords

WWW.KRYSTAL-KABLES.COM
Tel: 01579 362189
**D-lite!**

Sonic Impact's diminutive 'T-amp' has been causing a real stir amongst audiophiles the world over. Indeed, many proclaim it nothing less than the start of an audio revolution: true high quality sound at a giveaway price. Yet it can be easily tweaked to better exploit the true potential, says John May.

To my mind, the Sonic Impact 'Portable T-amp' is the greatest piece of budget gear ever. Whilst the mainstream magazines have been slow to sing its praises, it is already considered something of a cult item on the Internet DIY groups. For £20-£30, and a few days worth of running in, you are rewarded with a sound that some have — rightly — likened to amplifiers costing upwards of £1,000! Certainly I've been absolutely over the moon with mine, and it still has the ability to stop you dead in your tracks and have you re-evaluating a piece of music you thought you knew well.

The thriving DIY community on the Internet is a godsend to a 'financially challenged' audiophile such as myself! Over the last few months I've been keeping tabs on the DIY scene on various websites, most notably the rather fantastic www.diyaudio.com. From the 'Class D' section I learnt about a few little tricks which — while not breaking the bank by any means — would provide a far greater level of performance that the stock unit was capable of.

One of the biggest gripes about the T-amp (forgivable given its giveaway price) is the spring-clips for the speaker cable, and the small headphone jack for audio-in. A new case means higher quality connectors may be used to better suit the speaker cables and interconnects which are most likely to be found in an audiophiles system. There are enthusiasts out there who are already offering fantastic enclosures, every bit the equal of commercial offerings, and I have included one such enclosure kit in the links section. In order to keep this to a strict budget however I decided upon an extruded aluminium enclosure from Maplins (see parts list). The front/rear panels are available as either plastic items, or plastic with an aluminium plaque. I choose the former, as it was easier to machine with the limited tools at my disposal.

**D-SIGN MATTERS**

The first step in modding the T-amp is removing the tiny circuit board from its plastic enclosure. The four rubber feet must first be removed, revealing four Philips-head screws underneath. Next stage is to open up the battery compartment. Towards the rear of the compartment are two small Philips-head screws, which must also be removed. Once done the two halves of the enclosure must gently be prized apart. Next step is to cut all connections to the volume pot, speaker connectors, and DC-in (I find a pair of toenail clippers are indispensable for cutting thinner wires and also component leads).

The circuitboard is held in place via two melted pieces of plastic from the case that protrude through the circuit board and are located next to the chip. Gently using a scalpel and chipping away at this gently will free the board. There may also be some hot-melt glue you will need to carefully remove. Golden rule here is to take your time...

To be frank, I think people go a little over the top with connectors on their projects. Those huge gold or silver-plated speaker binding posts and phono-sockets may look very impressive, but they represent yet another barrier through which that delicate signal must travel. Like DNM, I tend to favour a 'less metal is better' approach to connectors. With this in mind I was going to choose some simple 4mm sockets (the kind you get on some lab equipment and available for a few pence from RS and Maplins). However in the end I decided to go for some slightly more robust 4mm binding posts in case I ever wanted to use thicker cables minus a banana plug. Phono sockets used were the now standard gold-plated with Teflon insulation variety from Maplins. DC-in socket was also from Maplins for a few pence, as was the on/off toggle switch for power.

Next on the list was a better quality volume pot. Again not wishing to push the boat out too much I settled upon the ubiquitous ALPS Blue pot, value 50k.

The most complicated part of this rebuild — and one, which should be tackled before the board is mounted in its new casing — is modifying the input section. As it stands the bass response on the stock T-amp is rolled off, undoubtedly reflecting the budget sources and speakers the amp was intended for. Replacing this input section extends the bass response to achieve a more...
Affordable High Performance Phono Amplifier from Trichord Research

Dino

Moving Coil
Moving Magnet
Switchable Gain
Switchable Loading
Super Regulators
Discrete Output Stage
Upgradable Power Supply

‘Never Connected’ power supply now available for the Dino.

If you already own the Dino+ power supply you can have it brought up to date with this unique noise reduction technology.

Please contact us or your dealer for more information.

Tel: +44 (0)1684 311600

www.trichordresearch.com
full-range presentation. Michael Mardis’s website proved a godsend in achieving this. A seasoned builder of quality hi-fi, and a regular on the DIY forums, his instructions are straightforward and just about foolproof to follow. They consist of removing two surface-mount resistors (R1 and R2) using a soldering iron to heat the components and then gently flicking them away from the board. This is a lot easier than it sounds by the way.

Next, these must be replaced with two 22k resistors (0.5 watt metal film types from Maplins are perfectly adequate). This involves some very fine soldering. I found it easier to manage by first gluing the resistors to the edge of the circuit board using Super Glue, making sure the tips of both touch the appropriate solder-pads on the circuit board (Fig. 1 & Fig. 2). Once the glue is dry, apply a little bit of solder to the resistor ends taking care not to get solder on the wrong pads. A magnifying glass might well be useful here, as will a low wattage soldering iron and the finest solder-tip you can find. Once done, I trimmed the remaining ends of the resistors ready to be connected up to the new input capacitors.

Next stage is to improve the quality of the PSU capacitor on the board. I replaced the 330uF type with a 470uF 35v Panasonic FC capacitor – the extra ratings allowing a little more power to be squeezed out of the T-Amp. Some fit 1000uF and above capacitors here, but – as with the Gainclone amplifiers – I think smaller can sometimes be better, and according to the Tripath data sheet the 2024 chip doesn’t need a lot of capacitance anyway.

In the stock T-Amp there are four black ‘towers’ surrounding the PSU cap. Word is they are responsible for a slight graininess to the presentation, a slight reining-in of the sound. I’d heard great things about the replacement air-cored inductors from www.autocostruire.com and decided to push the boat out and order these as well. Replacement is straightforward and simply consists of replacing old with new – they are the pink components visible in Fig. 4.

One criticism sometimes levelled at the T-Amp is a brightly lit presentation of music, and a little bit of upper-midband glare. With this in mind I decided against using silver-plated, or solid-silver wiring for fear of highlighting this trait. I decided instead to go with solid-core copper wire for the signal and DC-power connections. Existing wires may be removed using a fine iron tip and some de-soldering braid. Take care to note where the wires go before removing them, although there are legends printed onto the circuit board to as what goes where. As can be seen from the photos the two red leads nearest the chip are connected to the new on/off switch at the front of the casing. The remainder of the wires on this white plastic connector are trimmed off. The remaining wires on the circuit board are connected up as shown in Fig. 3. Please remember to triple-check all wiring before soldering. The DC leads were covered with Teflon insulation, while the signal connections used waxed-cotton covering - some believe this results in a more mellow presentation. I must admit I remain highly sceptical, but I had some to hand and thought it can’t hurt!

The circuit board itself I attached to the casing with two nylon stand-offs I had kicking around. Again these are readily available at Maplins or RS. As you can see in the picture I added a heatsink to the chip as it does get rather warm, especially if you’re using a 13.8v DC PSU as I do, and which comes highly recommended as an instant ‘fit & forget’ upgrade. One can also add an optional 33k-50k resistor at the inputs that lowers the input impedance slightly. The stock T-Amp was really intended to be run from the headphone jacks of iPods and so-forth, not stand-alone hi-fi separates, so this may be of benefit with some gear. I found this was not necessary in my case though, using the Pioneer DV-575A as source. The case may also be grounded using the – return on the DC input. I left my case floating however.

As can be seen in Fig. 4, the signal runs directly from the input sockets to the Alps Blue pot. As always, signal runs should be kept as short as possible, but not short enough that you cannot slide the front and/or rear panels slightly off to reft the enclosure lid! I used some metallised polypropylene-film capacitors from AmpOhm for the new input capacitors. At the other end of the scale users have reported fantastic results with paper-in-oil capacitors from Jensen, or Auricap (available from our very own www.worldaudiodesign.com shop). The capacitors may be held in place by some hot-melt glue, which is also very effective at damping vibrations. The leads on my caps were a little to thick to work with comfortably, so I cut the leads off and used

---

**PARTS LIST**

<table>
<thead>
<tr>
<th>Item</th>
<th>Supplier</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hammond Enclosure – Maplin Part No. N77AL</td>
<td>Maplin</td>
<td>£8.99</td>
</tr>
<tr>
<td>ALPS Blue Pot 50k – RS. Part No. 236-9604</td>
<td>RS</td>
<td>£13.58</td>
</tr>
<tr>
<td>Binding Posts – RS Part Nos. 404-834 &amp; 404840</td>
<td>RS</td>
<td>£1.30 each</td>
</tr>
<tr>
<td>2.2uF AmpOhm Capacitor – RS Part No. 365-7479</td>
<td>RS</td>
<td>£3.61 each</td>
</tr>
<tr>
<td>Replacement Inductors – <a href="http://www.autocostruire.com">www.autocostruire.com</a></td>
<td>20 Euro</td>
<td></td>
</tr>
<tr>
<td>Phono Sockets – Maplin Part No. JZ05F &amp; JZ06G</td>
<td>Maplin</td>
<td>£1.99 each</td>
</tr>
<tr>
<td>Wire – Up to constructor</td>
<td>Try <a href="http://www.wires.co.uk">www.wires.co.uk</a></td>
<td></td>
</tr>
<tr>
<td>DC sockets and toggle switches – Maplins or RS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
When detail matters........

The new MRS equipment support from Henley Designs, serious about sound!

Henley Designs 01235 511166
www.henleydesigns.co.uk

Johann Sebastian would have been very proud.

The Kontrapunkt series from Ortofon. Named as a sign of respect for possibly the greatest, and the last, of Johan Sebastian Bach's works - The XIXth Contrapunctus.
From around £400 and available from most quality Hi-Fi stores.

Distributed by Henley Designs, 01235 511166, www.henleydesigns.co.uk
some more of my 0.6mm solid-core copper wire. The new 2.2μF input capacitors are connected to each end of the 22k resistors (yellow wires connected to the caps in the photos). The other end of the caps are connected up to the middle solder-lugs on the ALPS volume pot.

SOUNDING OUT

The modified T-amp takes about a week to really come on song, but when it does I think you'll be pleasantly surprised at the improvement wrought. This amp majors on detail and atmosphere and really cuts to the heart of all music. I was amused by all the coughs and page-turnings I heard in the Kirill Kondrashin conducted rendition of Alexander Borodin's Symphony No.2 in B minor on a Philips CD. I'd never heard these so clearly highlighted before using my modified Quad 303. Likewise the tone and individual character of all the instruments was spot on. Smooth, organic, unforced but with the ability to go from quiet to loud at the drop of a hat. Massed instruments presented no problems either — it was hard to believe this little beastie only puts out around 5-6 watts as I was achieving ear-bleeding volume levels without any hint of strain at all which wasn't the case with the stock unit.

Supernature from the wonderful Goldfrapp showed this amp could also boogie with the best of them. Bass was now a lot fuller than before, and the midrange less congested. I was particularly taken with the almost valve-like ease with which it dealt with vocals (not a hint of grain here), but with a solid-state 'drive' to the music. I thought my Quad 303 particularly good in the vocals area, but the modified T-amp easily bested it. Kate Bush again showed this to impressive effect on her 'Kick Inside' CD which I ended up listening to twice I was so entranced.

Please do not make the mistake of using the T-amp with cheap sounding budget sources as it has a habit of 'telling it like it is'. It will not give of its best until partnered with more esoteric fare. It easily differentiated between the sound of my modded Pioneer DV-575A from the more analogue-like sounding Mission PCMII (with Net Audio non-OS mod) using the classic TDA1541A multi-bit converter. Certainly there are tales a plenty of satisfied enthusiasts using modded T-amps with CD players from Krell, Wadia and so forth with high-end Lowther drivers!

Whilst the level of performance afforded by these mods is indeed considerable, this is just the tip of the iceberg. Paper in Oil or Film & Foil caps maybe used for the input caps (Auricaps from our own World Audio Design shop would be ideal), higher quality wire sourced, power supply caps from Black Gate substituted, stepped attenuators used and so forth — as with anything DIY the only limit is your imagination and your wallet! This is without doubt my favourite amp of the moment. I look forward to trying out some of the other Class-D kits next and seeing if they can improve upon the T-amp. As far as budget gear is concerned we've certainly never had it so good!

Special thanks to Michael Maidis for the use of his pictures in this article!
NEW Maths !!!
£650 + £650 = £1000
Maths - Logical
Saving - Colossal
Experience - Emotional

CD player & INTEGRATED amp
Lock, Stock & Both Smoking Barrels
KANDY

Henley CD player & INTEGRATED amp
Kandy MkIII integrated amplifier
WHAT HI-FI SOUND AND VISION Winner 2004 Award
Kandy MkIII CD
HI-FI CHOICE Bronze award 2004 Awards
Kandy MkIII integrated amplifier
WHAT HI-FI SOUND AND VISION Winner 2003 Award
Kandy MkIII integrated amplifier
WHAT HI-FI SOUND AND VISION Winner 2002 Award
Kandy MKIII integrated amplifier

Five Stars
WHAT HI-FI SOUND AND VISION October 2003
Kandy CD
Five Stars
WHAT HI-FI SOUND AND VISION First test July 2003
Kandy MkIII integrated amplifier
Five Stars
2003 SUPERTEST WINNER (5 Star Gold)
WHAT HI-FI SOUND AND VISION May 2003
Kandy Integrated amplifier
Five Stars
2002 SUPERTEST WINNER (5 Star Gold)
WHAT HI-FI SOUND AND VISION February 2002
Kandy CD player, Amplifier & Speakers
Five Stars
WHAT HI-FI SOUND AND VISION January 2001
Kandy Integrated amplifier
Five Stars
WHAT HI-FI SOUND AND VISION April 2000
Kandy CD
Five Stars
WHAT HI-FI SOUND AND VISION March 2000

TWIN PACK

Henley Designs
Tel: 01235 511 166
www.henleydesigns.co.uk
Here’s your chance to win a truly special pair of standmounting speakers in the shape of the Pinsh One! In October’s supertest, the little Ones came out head and shoulders above the others. Here’s what Channa Vithana had to say:

“The Pinsh is an attractive and attractively proportioned little speaker measuring 200x300x360mm. Thus the cabinet is deep, with a 12 litre internal volume and is made from MDF. It comes in Black Ash, Cherry, Oak, Maple and Walnut finishes. Pinsh is uncommon because it manufactures its own ribbon tweeters, and moreover does so in the UK. The Pinsh ribbon has a claimed frequency response from 400Hz to 40kHz, and though the material composition remains confidential, its mass is just 7mg. Rare Earth metal magnets are used in this design. Accordingly, Pinsh say that there are no additional moving parts like spiders, domes and voice coils and formers including adhesives, all of which have thermal limit. Pinsh says its zero store ribbon has no damping, neither is it enclosed in a sealed chamber. It claims that distortion is exceptionally low, and frequency response is linear, with the upper limits at 100kHz. Pinsh also design and manufacture the crossover in house using what they call “the absolute minimum of components”, while the Sinch (127mm approx) mid/bass driver is made for Pinsh by Morel. Pinsh describe it as having a frequency response from 40Hz to 4000Hz. It has a 75 mm aluminium voice coil, aluminium wire wound with no air gaps, and a claimed impulse response “fast enough to follow our PINSH ribbon”. The Pinsh 1 is rear ported with quoted sensitivity of 88dB and impedance at Bohms.

The low frequencies from the Pinsh 1s were beautifully rendered via the ‘Allegro’ from the ‘Elgar Violin Concerto’. There was not only depth and extension, but a good slice of bass dexterity as well which was most welcome. The violin solo was authoritative through the Pinsh 1, sounding less coloured than the other speakers in this test... The low-frequency excellence continued with - and was beneficial to - ‘Super Overdrive’ as there was a superb dynamic thrust to the music. The music additionally hung together cohesively very well and had great emotional resonance with both guitars and vocals... The vocals were sublime, generating a multilayered unravelling to reveal greater tonal shading... Overall then, a deeply impressive loudspeaker... Brilliantly even right across the frequency band, it showcases the benefits of ribbon tweeter technology... Superbly natural and seamless sound with excellent musical articulation makes this one of the very best sub £1,500 mini-monitors on sale.”

If you’d like to win this superb speaker, then all you have to do is answer the following four easy questions. Send your entries by 31st October 2005 on a postcard to: November Competition, Hi-Fi World magazine, Unit G4, Argo House, The Park Business Centre, Kilburn Park Road, London NW6 5LF.

RULES AND CONDITIONS OF ENTRY
- ONLY ONE ENTRY PER HOUSEHOLD
- MULTIPLE ENTRIES WILL BE AUTOMATICALLY DISQUALIFIED
- PURCHASER OF THE MAGAZINE IS NOT A PRE-CONDITION OF ENTRY
- NO CORRESPONDENCE WILL BE ENTERED IN TO
- THE EDITOR’S DECISION IS FINAL
- NO EMPLOYEES OF AUDIO PUBLISHING LIMITED, OR OF ANY COMPANIES ASSOCIATED WITH THE PRODUCTION OR DISTRIBUTION OF THE PRIZES, MAY ENTER

QUESTIONS
1. Pinsh manufacturers its own what?
   [a] wine
   [b] ribbon tweeters
   [c] fuel oil
   [d] wool

2. The crossover uses the absolute minimum of what?
   [a] screws
   [b] components
   [c] grommets
   [d] widgets

3. Who makes the mid/bass driver for Pinsh?
   [a] KEF
   [b] Morel
   [c] Audax
   [d] Elac

4. The Pinsh One is one of the very -sub £1,500 mini-monitors on sale?
   [a] worst
   [b] best
   [c] smallest
   [d] biggest

November Competition
Hi-Fi World magazine
Unit G4 Argo House
The Park Business Centre
Kilburn Park Rd.
London NW6 5LF

entries will be accepted on a postcard only

AUGUST 2005 ARCAM DT91 DIGITAL TUNER:
Dave Penney of Eastleigh
New Models!

**Stereo 60**
KT88 Integrated 2x 65w rms
ALL TRIODE Push-pull driver stage. Triode mode 2x 30w
From £1299 without upgrades

**Stereo 300**
From £1599 without upgrades

**LA4 Line pre-amp**
From £649.95 without upgrades

**PS 1 Phono Stage**
High output, with level control. Will drive most power amps. All valve, ALL TRIODE, passive RIAA, no feedback. Custom moving coil TX option. Choke regulated smoothing. Separate power supply. 8kg.
From only £399.95 without upgrades

We get phone calls daily from people who are frustrated with the fatiguing, harsh sound of solid state amplifiers. 100’s of our customers enjoy the warmer, more subtle tones of valve amplification.

- Designed by Icon Audio In Leicester UK.
- Each amp carefully commissioned & tested in Leicester.
- All supplied with beautiful valve covers.
- Part Exchange facility for your old equipment, ask us!


Buy with confidence. Well established. Proven reliability. Unbeatable advice & back up service. Try for 30 days, refund if not delighted!

More information on our website at www.iconaudio.co.uk
Or ring for an illustrated Leaflet. Auditions by appointment.
Phone 07787 158791 Email sales@iconaudio.co.uk

---

**Townshend**

Since 1975 Townshend Audio has been producing world class high fidelity components. The latest being the TA565CD silver disk player.

CD sound is simply outstanding: smooth, lively, fast and completely un-fatiguing. Employing Enhanced Deep Cryogenically Treated™ copper wire-wound coupling transformers in the output circuitry together with damped spring isolation, the specification and the sound quality exceeds anything currently available.

And by the way, it plays DVD-Video, SACD and DVD-Audio in stereo and multichannel!

Also new is the Versatile Seismic Sink Stand (VSSS). Employing polymer suspension elements, the VSSS isolates ground-borne vibration from 2Hz upwards.

Available in all standard widths and with up to 8 shelves, the stand can take 70kg (total) on infinitely adjustable shelves.

Finally, the Hi Fi World Accessory of the Year 2004, the Maximum Super Tweeter sits on top of your existing speakers or on special brackets for Quad 57 and round/sloping topped speakers.

"The difference was staggering" - Hi Fi World, Jan 04

For a demonstration of the above on the full Townshend Audio stereo or surround sound cinema system in Hampton Court, Surrey, or for your nearest dealer information, call Townshend Audio +44(0)20 8979 2155 or see www.townshendaudio.com

---

**Audiolab**

As the area’s leading Hi-Fi Specialist, we invite you to our superb demonstration suite to audition the fantastic new range of hifi separates from Audiolab.

Free Parking. Finance Available (subject to status)
Romers Hi-Fi, 11 Lomax Street, Great Harwood, Blackburn, Lancs. BB6 7DJ

9am – 5pm Mon - Sat

01254 880220

The home entertainment specialists
SAVE UP TO £240 ON STAX HEADPHONES WHEN YOU SUBSCRIBE TO HI-FI WORLD

Here’s your chance to save 10% off the retail price of any pair of Stax headphones from Simply STAX, the UK’s leading retailer of STAX electrostatic earphones, when you subscribe to Hi-Fi World magazine!

Subscribe for 12 months for just £40 and get a voucher giving you 10% off the retail price of any single new STAX system from Simply STAX.

This gives you a minimum saving of £34.90 if you purchase the STAX SRS-2020 system and a staggering saving of £239.50 if you purchase the incomparable SR-007 Omega Reference System!

Even on the superb SRS-4040 system reviewed in the August 2005 issue, this means a saving of no less than £99.50 — more than twice the cost of the annual subscription!

See www.simplystax.co.uk/products.html for details of all current STAX products.

YES! I want to subscribe to Hi-Fi World for:-

☐ £40.00 for 12 months

Your Details

Title Initial Surname

Address

Post Code

Daytime Tel:

Start Issue

Delivery Address (if different)

I would like to pay by cheque made payable to Audio Publishing Ltd. ☐

Please debit my VISA ☐ MASTER ☐ SWITCH ☐ AMEX ☐

Security No: [last three digits printed on the signature strip]

Switch card issue No: Expiry Date:

Cardholder Signature:

Please choose service:-

ZONE 1 USA, Canada, Africa

ZONE 2 Australia, Japan, Korea, China, Middle East & South East Asia

EUROPE Airmail £50.00

ZONE 1 Airmail £60.00

ZONE 2 Airmail £70.00

Send this form to:
Hi-Fi World, Subscriptions Department
PO Box 464, Berkhamsted, Hertfordshire
HP4 2UR
**Single ended purity**

Our Parallel Single Ended (PSE) power amplifiers offer the ultimate in sound quality. Each monobloc has two highly acclaimed 300B triodes delivering 20 watts into an 8 ohm load.

The front end consists of a 6A8 pentode feeding an ECC82 driver.

The ultra-quiet power supply uses a 5U4 rectifier combined with a custom 10H choke. Both mains and output transformer are purpose-built complex layer devices that are so linear that feedback (a normally unavoidable compromise to reign in and control most amps) can be completely switched out.

This facility, operating in pure Class A, is available only on a few world-class machines and produces a sound so open and dynamic that has to be heard to be believed.

### Push Pull Power

Sharing the same chassis and look as the PSE, the push pull (PP) version is designed for people who prefer a little more power. Producing 26 watts, it can handle most modern loudspeakers with ease. Again without feedback, this version uses a 6AU6 pentode for input but a 5687 as a phase splitter. WAD. We're proud of our Sound.
KEL84 is an affordable amplifier for those who want to enjoy the valve sound, but from a simple, easy to build kit.

It uses inexpensive EL84 output valves, known for their sweet sound, in conventional push-pull arrangement to provide 15 watts into an 8 ohm load. The transformers are our own high quality Ultra Linear design made in the UK.

Up front, the circuit employs an ECF80 input / phase splitter valve which contributes to the KEL84’s extremely smooth sound.

For simplicity, the KEL84 is built on a printed circuit board. A strong steel chassis is then fronted by a 3mm thick anodised aluminium front panel and brushed aluminium knobs.

There are two versions available, a single input version with volume control and an integrated version with five line level inputs and tape loop. The integrated version also features an ALPS blue volume control and chrome plated transformer covers as standard.

The KEL84 will highlight all the intricacies and depth of detail in your favourite recordings whilst retaining a warmth and fullness that is almost exclusive to valve amps and is rare at this price point.

KEL84 weighs 10Kg. External dimensions with valves are 300mm(w)x270mm(d)x150mm(h)

Single Input version £ 285
Integrated version £ 335

Our 6550 series amplifiers are built around the rugged 6550 beam tetrode that’s popular in America.

This valve is widely available and at a good price. This enables us to provide a high quality amplifier kit at realistic price. Producing no less than 40 watts our 6550 is a power house.

The difference between our 6550 and most others is that we use valve rectification (5U4) and a choke pi filter, for a power supply that is quiet and free from solid-state hardness. This is a true high-end design from Andy Grove. With its custom designed and made transformers it is a cut above many 6550s. with enough power to drive most loudspeakers, including insensitive electrostatics for example.

The 6550 is available in two versions, the integrated Kit6550 with ALPs volume control five line level inputs and a tape monitor circuit or the KaT6550 power amplifier for use with a separate pre-amp.

The amplifier weighs 19Kg. Dimensions are 390mm(w)x330mm(d)x220mm(h)

Prices shown include valves. Also available without valves on request.

Kit6550 £ 615
KaT6550 £ 580

The Headphone II amplifier is a beautifully simple design using Mullard ECL83 tubes, a triode and power pentode in the same envelope.

It works from any line level source i.e an amplifiers tape or pre amp out sockets.

The circuit uses high specification EI output transformers that can drive any headphone load from 16 ohms to over 300 ohms depending on how the secondaries are wired.

The Headphone II is a pure Class A single ended design with the power pentode connected in triode configuration for sonic purity and is as quiet as a mouse.

Treble has the crispness of the best solid state but with the tonal resolution and delicacy associated with tubes. Bass is punchy and controlled without becoming artificial.

Dimensions are 270mm(w)x275mm(d)x85mm(h)

HEADPHONE II KIT ....... £ 285.00
Reference Books

The practical guide to building, modifying, fault finding and repairing valve amplifiers. A hands-on approach to valve electronics, classic and modern - with a minimum of theory. Planning, fault finding and testing illustrated by step by step examples. Building Valve Amplifiers is a unique hands-on guide for anyone working with tube audio equipment as an electronics experimenter, audioophile or audio engineer.

Particular attention has been paid to answering questions commonly asked by newcomers to the world of vacuum tubes, whether audio enthusiasts taking their first build, or more experienced amplifier designers seeking to learn the ropes of working with valves.

The practical side of this book is reinforced by numerous clear illustrations throughout.

Price £20 plus £2 p&p

Morgan Jones's Valve Amplifiers has been widely recognised as the most complete guide to valve amplifier design, modification, analysis, construction and maintenance written for over 30 years.

The author's straightforward approach, using as little maths as possible, makes this book ideal for those with limited knowledge of the field as well as being the standard reference text for experts in valve audio and a wider audience of audio engineers facing design challenges involving valves.

Price £30 plus £2 p&p

Many more titles available, please check www.worldaudiodesign.com for more details

How to order...

There are various ways you can order and make payment for your purchases:

Visit us at www.worldaudiodesign.com

Secure payment option: World Audio Design Ltd. accept all major credit cards through HSBC's online system which encrypts order details before transmitting them, thereby protecting your card and personal information when in transit. We believe this system to be the most convenient and reliable method to ensure that your card details are treated in a responsible and reliable way.

Tel: 0845 2575600 Fax: 0845 2575623

We do accept the fact, that many people prefer doing business talking to a real human being. Call us in office hours and we'll do our best to find the right kit for your ability and budget.

Please make cheques payable to World Audio Design Ltd. and send them together with list of your chosen items to FREEPOST WORLD AUDIO DESIGN

Prices are correct at time of print, 05/05/05 but can change. If you wish to purchase a kit please call our hotline for a quote / Valves included except where otherwise stated. E&OE

WARNING: World Audio Design Ltd. accept no responsibility for kits, parts or modifications made or supplied by third parties. Order on our website: www.worldaudiodesign.com
<table>
<thead>
<tr>
<th>PARTS DESCRIPTION</th>
<th>PRICE (inc vat)</th>
<th>PARTS DESCRIPTION</th>
<th>PRICE (inc vat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIO signal 0.01uF Aluminium Fool</td>
<td>£10.13</td>
<td>PIO signal 0.1uF Copper Fool</td>
<td>£15.29</td>
</tr>
<tr>
<td>PIO signal 0.1uF Aluminium Fool</td>
<td>£12.50</td>
<td>PIO signal 0.1uF Copper Fool</td>
<td>£18.27</td>
</tr>
<tr>
<td>PIO signal 0.22uF Aluminium Fool</td>
<td>£14.51</td>
<td>PIO signal 0.22uF Copper Fool</td>
<td>£22.02</td>
</tr>
<tr>
<td>PIO signal 0.47uF Aluminium Fool</td>
<td>£16.61</td>
<td>PIO signal 0.47uF Copper Fool</td>
<td>£28.94</td>
</tr>
<tr>
<td>PIO signal 1uF Aluminium Fool</td>
<td>£19.99</td>
<td>PIO signal 1uF Copper Fool</td>
<td>£41.23</td>
</tr>
<tr>
<td>PIO signal 0.47uF Copper Foil</td>
<td>£28.94</td>
<td>PIO signal 1uF Copper Foil</td>
<td>£41.23</td>
</tr>
<tr>
<td>Other values and versions available - Please Call.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Jensen Capacitors (630v)**

- PIO signal 0.1uF / 600V: £10.40
- PIO signal 0.022uF / 600V: £10.40
- PIO signal 0.047uF / 600V: £10.40
- PIO signal 0.1uF / 600V: £10.40
- PIO signal 0.22uF / 600V: £11.15
- PIO signal 0.47uF / 600V: £13.50
- PIO signal 1uF / 600V: £17.00

**Jupiter Beeswax Signal Capacitors**

- Auricap 0.1uF / 400V: £6.11
- Auricap 0.22uF / 800V: £10.93
- Auricap 0.47uF / 800V: £12.45
- Auricap 1uF / 400V: £7.76
- Auricap 2.2uF / 400V: £14.10

**Auricap**

- 1uF / 600V: £16.85
- 2.2uF / 400V: £16.85
- Replacement tips for XSL iron: £3.00
- Replacement tips for CSL iron: £3.00
- Lead foil: £1.53
- 4m tube: £2.02
- 100g reel: £4.50

**Lead Free Soldering**

- Antex CSL 18 watt soldering iron: £16.85
- Antex XSL 25 watt soldering iron: £16.85
- Replacement tips for CSL iron: £3.00
- Replacement tips for XSL iron: £3.00

**Help and advice.**

Personal callers are welcome to collect their purchases in person or visit our Demo Room but please phone ahead especially if making a long journey as we can’t always be there to greet you.

As all the kits are capable of producing high voltages they require diligence and extreme care to build safely. Read the safety instructions thoroughly before construction. You must be able to solder to a reasonable standard and be able to read a circuit diagram. The KEL84 and Series II kits are generally the most straightforward to construct as they utilise PCBs. None of the kits are suitable for children to build without total supervision.

If you are in any doubt about your ability to build one of our kits, give us a call! We will give you straightforward, honest advice to enable you to pick a kit to suit your pocket and ability. We hail from an electronics background and have test-built every kit we sell. If you need help during assembly or just want to check something give us a call.

If you need further help we have a collect and repair service at reasonable rates based on workshop time. We can also arrange for kits to be built to order and your specification.

**Telephone 0845 2575600**

Post orders to FREEPOST WORLD AUDIO DESIGN (no stamp needed)

All parts prices shown include VAT
can remember a time when I linked power to performance - and the more the merrier. Performance was a catch-all notion I hadn't much considered, embracing everything. In retrospect it seems pretty naive, but then a lot has changed. These days power comes cheap and often wears a tappy face, in the form of budget surround-sound systems especially. Tesco will do you a complete Sony surround-sound system producing 720W, for £169.99 - and that includes six loudspeakers! This sort of thing has unlinked power from quality. Perhaps the Sony system is a triumph of quality and I am being overly critical here, but somehow I doubt it...

Few of us think that power in itself means much anymore, or so I might think, but perhaps not. In this issue T+A make much of the power they have squeezed from valves in the V10. Musical Fidelity are resolute in the need for high power in the home and the power chart in our feature clearly shows that past 100W it takes hundreds more to make much difference to the loudness we perceive. Power is still very much an issue in truth, especially when you have a large home. As a friend who lives in America is fond of pointing out, "Noel, my walk-in wardrobe is bigger than many UK bedrooms". Britons are short of space and pay heavily for it, which influences the national picture a little. Impossibly small homes - er, "bijou residences" - in Chelsea cost astronomical amounts. In homes like this power isn't an issue - it's a liability. Britain's densely packed towns and cities have little need for serious power, although I'm sure I heard it said recently on the radio that U.K. homes are too small and that average size needs to increase to accommodate modern living.

When and if they do - a distant prospect I suspect - then our need for power will rise accordingly. As sound pressure level drops a large 6dB for every doubling of distance, but rises only 3dB for every doubling of power, the power hikes needed to cope with large rooms are enormous. Hi-fi equipment needs to be designed and built on quite a different scale to that which we are used to, in fact, and this is partly what makes the U.S. market so different to our own. Their problem is one of moving enough air. You need big drive units or plenty of them in a loudspeaker, often both, to energise a big room. An alternative is to spread loudspeakers around the room, home cinema style. Home cinema makes much more sense for Americans with both the space and the need than it does for the average Briton. Conversely, a small stereo system is ideal for us.

Either way Americans, it would seem, have a need for large, space-consuming products that devour power. As glitzy as a lot of American power amps appear, they are largely overkill for our homes. It's a pity, as this is where some seriously interesting ideas surface. Much the same comments can be applied to large, high power loudspeakers. Many American designs are technically interesting, but are not suited to the average British home. In most cases they over-drive the basic modal resonances of a small room, making it boom badly. Placed in a larger room, however, such 'speakers can sound impressively even and well controlled, as well as prodigious in bass output.

Conversely, a small stereo system is ideal for us. When and if they do - a distant prospect I suspect - then our need for power will rise accordingly. As sound pressure level drops a large 6dB for every doubling of distance, but rises only 3dB for every doubling of power, the power hikes needed to cope with large rooms are enormous. Hi-fi equipment needs to be designed and built on quite a different scale to that which we are used to, in fact, and this is partly what makes the U.S. market so different to our own. Their problem is one of moving enough air. You need big drive units or plenty of them in a loudspeaker, often both, to energise a big room. An alternative is to spread loudspeakers around the room, home cinema style. Home cinema makes much more sense for Americans with both the space and the need than it does for the average Briton. Conversely, a small stereo system is ideal for us.

Either way Americans, it would seem, have a need for large, space-consuming products that devour power. As glitzy as a lot of American power amps appear, they are largely overkill for our homes. It's a pity, as this is where some seriously interesting ideas surface. Much the same comments can be applied to large, high power loudspeakers. Many American designs are technically interesting, but are not suited to the average British home. In most cases they over-drive the basic modal resonances of a small room, making it boom badly. Placed in a larger room, however, such 'speakers can sound impressively even and well controlled, as well as prodigious in bass output.

I've spoken to many American audio manufacturers that would dearly like to access the UK market but find their products just don't travel well, partly for these reasons. We've little experience of really high power systems here and can't accommodate them even if we wanted to.

It's easier for Americans to accept Britain's relatively modest audio products and one U.S. reviewer recently said "the country specialises in great budget products". Er, yes! That's the view from the other side. They're budget for various reasons, depending upon who you talk to. Some say because that's all the Bries can afford which, looking at the value of their homes and size of their loans, I can't agree. Some say because we have a tradition of producing great, low cost items. The Japanese may not think so. Or that we just don't need oodles of power, because of our homes, which I think is closer to the mark.

Whilst the use of low power hasn't become a belief system with me, it does carry with it certain attractive connotations, such as high efficiency and low waste, which in turn usually arise from good engineering. I was uncomfortable with the drive toward high power as an end in itself, a trend of the late 1970s as I remember it, when solid-state amplifiers could be designed to deliver 1000W, so they were. Then came loudspeakers that could absorb power, with big, lossy plastic cones that quacked more than a pondful of ducks at feeding time and crossovers that turned so much music energy into heat they burst into flame - or at least at the parties I held at the time.

Today we seem to have settled into a middle field, where loudspeakers of 86dB-90dB sensitivity need no more than 100W or so to shake the average British home. Now that higher power costs less money at Tesco my once simple assumption that power equals quality has been turned on its head. These days, aiming down a little can take you up. High power is unnecessary.
To coincide with the IFA consumer electronics show in Berlin in early September, ARD launched fifty-four radio stations using the Dolby AC3 codec at 448 kbps. The launch of these radio stations using 128 kbps, and three radio stations using 320 kbps and a pitiful 128 kbps for the Asian stations on satellite only use 192 kbps for 6 Music, BBC7 and 1Xtra; 160 kbps for Radios 1, 2, 3, and 4; 128 kbps for the BBC's national DAB stations. Local radio stations aren't available on satellite, however, apart from some London local stations.

Although none use the very high bit rates that the ARD stations use, the audio quality of the UK stations on satellite is usually better than on DAB. All the BBC's radio stations except Radio 3 use significantly higher bit rates on satellite, and even Radio 3 frequently has its bit rate reduced on DAB. Amazingly, even the commercial radio broadcasters design to use higher bit rates for most of their radio stations on satellite.

Classical music fans are well catered for on the European satellites. By general consensus the best of the bunch is the ARD station Bayern 4 Klassik. Another ARD station is WRD3, and classical music stations from other countries include France Musique, Radio Classique (both of which use 256 kbps), Concertzender, Swiss Classique and the strangely named Hector. The latter two stations are on the Hotbird satellites, while all the other European classical stations mentioned are on the Astra 1 satellites. I'll return to the issue of the different satellites shortly.

Some highlights for fans of other music genres include the jazz stations TSF, Frequency Jazz and Jazz Radio 101.9 on Astra 1, and Radio Swiss Jazz on Hotbird. For those with an eclectic taste there's French stations Radio Nova and Fip, both on Astra 1.

To receive radio via satellite you'll need to have a line-of-sight view to the satellites, a suitable dish with an LNB (Low Noise Block — the thing at the front of the dish) and a digital satellite receiver. There are three different satellite 'constellations': all the UK-based channels are on Astra 2 at 28.2° east (east of due south), and the European-based channels are on Astra 1 at 19.2° east and Hotbird at 13° east. However, you only need one fixed dish to receive signals from all three satellite constellations because you can add an extra LNB for each additional satellite constellation required. To switch between the different satellites you'll also need a DiSEqC switch as well.

Satellite equipment is also surprisingly cheap. If you only want to receive the UK-based stations on Astra 2, you can buy a full system from as little as £75, which includes a dish with LNB and a digital satellite receiver. If you want to receive the European radio stations as well, then you will need a slightly larger diameter dish than for the UK-based stations alone, as well as the additional LNBS and DiSEqC switch. If you buy equipment off the Internet and pay for installation, the cost will match an average DAB tuner.

For a good website for general satellite and installation information try www.satcure.co.uk; for equipment try www.sateuropa.co.uk, www.hisat.com and www.wizardsatellite.com, and for installers try the Satellite TV & Equipment section in the Yellow Pages.

For up to date lists of channels available on the satellites see www.lyngsat.com/28east.html and www.lyngsat.com/22east.html and www.lyngsat.com/hotbird.html. Satellite is the way to go for quality on digital radio. Let's hope the BBC follow ARD's lead and use higher bitrates on satellite that show how good digital radio really can sound.
LJK SERTRIGHT: 1931-2005

Linn’s Ivor Tiefenbrun reflects upon the life of a very special person:

LEONARD JK SERTRIGHT

Born 10th August 1931 of Australian parents in London, Leonard grew up with machines and engineering in his blood. Leonard’s father was an innovative engineer and entrepreneur who designed and manufactured machinery powered by internal combustion engines.

Although Leonard was a qualified lawyer, he had no high regard for his profession. He preferred journalism and pursued a very wide variety of interests that lay elsewhere.

A modest, unassuming and very private individual, Leonard was at the same time no shrinking violet. He was a dapper dresser and always stood out in a crowd. Quietly spoken and forthright, Leonard was adored by his friends and revered by his readers. A long stint at Car magazine made a unique contribution to the success of that publication and he was widely respected by his editors for his sublime insight, the perfection of his prose and the accuracy and precise presentation of his contributions.

Leonard loved his food, his wine, his black Russian Sobranie cigarettes and life in general. He was the Head of the Turin Design Awards for many years and his eclectic interests ranged from Talmudic studies and history through music, literature, languages and the arts in general, together with engineering and shooting and much else. Leonard was a very keen motorcyclist and is reputed to have once averaged 150mph across France on a BMW. Only injuries sustained in a high speed motorcycling accident when he was approaching 70 finally curtailed his enthusiasm for high performance motorcycling.

He was an excellent shot, although he never shot at a living creature. He loved the precision engineered accuracy of his guns, especially his superb Tikka rifle, in the same way that he cherished his Bristol and Honda cars, his beloved clarinet and his very well used Linn hi-fi.

Leonard loved sensed and understood the spirit of machinery. He could perceive, appreciate, and describe beautifully, the soul of a machine, or a manufacturing organisation. Leonard died peacefully, surrounded by his close friends and family, after succumbing to cancer of the pancreas. He died without pain, at peace with the world, ready to meet his maker and completely prepared - as always - for a comprehensive and lively discussion. His first wife Chris passed away in 1980. LJKS passed away 7th September 2005 and is survived by his daughters, Anthea and Hilary, and his second wife, Helen.

SECOND THOUGHTS
I first met Leonard in 2003 at a restaurant in London’s Maida Vale, where I planned to ask him to write for Hi-Fi World. I’d read his words on motorcycles and cars for many years during the Halcyon days of Bike and Car (mid-seventies to mid-nineeties). I’d cheekily obtained his phone number from his publicist, using my Sunday Times connections, and at first he wasn’t sure about my proposal. We had a fascinating conversation, during which he regaled me with tales of his sabbatical in Texas, his passion for things as diverse as Latin, shooting and Honda petrol engines, and his distaste for – variously - political correctness, speed cameras and smoking bans. He came over as a brilliant yet modest, acerbic yet gentle man; one whose erudition was surpassed only by that wonderfully free thinking mind. He was a passionate musician and music lover, and hi-fi was but a tool for its enjoyment; he wasn’t interested in the hardware for its own sake, and expressed disdain for most hi-fi separates, which he (rightly, in my opinion) regarded as overpriced, over-hyped and under engineered. He loved his Linn hi-fi, and refused every opportunity to try new products – with the notable exception of a Creek tuner. Leonard drove me back to my office in his Honda Prelude, showing me his classic Pioneer stereo radio/cassette and declaring it the best he’d yet heard (he taped LPs direct from his LP12 via a Sony Walkman Pro to play in the car). I didn’t get the chance to hear it very much though, because almost as soon as he’d donned his leather driving gloves we’d reached our destination... I’m happy to say that Leonard agreed to write for Hi-Fi World until his poor health prevented it. All of us here on the HFW team very much enjoyed his contributions, and we will miss him dearly.

DAVID PRICE

"...he was a striking man in every sense"
A
s I sit at my desk listening to the radio, yet another mention is made of the iPod. It’s not the first today and it’s even in danger of being plugged more than a DAB radio that, as regular radio listeners will attest to, is quite something! Whilst in the hi-fi trade we’ve been aware of the rise of MP3 players for some time now, it’s now caught the public’s attention on a scale not far short of DVD a few years ago. With newspaper columns regularly featuring articles such as, “what I’m playing on my iPod” the technology has perhaps even transcended DVD – at least in terms of publicity. In short, it has now become a mass-market product. Unlike DVD players, and latterly recorders, however, the retail implications are very different.

With DVD there hasn’t been one dominant manufacturer. There never even was, or is, several dominant manufacturers. All the dominant Japanese, most of the Chinese and even a few of the Brits got a slice of the pie. With portable MP3 players it’s a very different story. The very fact that portable MP3 players are referred to, so commonly as iPods rather than MP3 players or, more correctly, portable jukeboxes, suggests a mass-market dominance not seen since the Hoover vacuum cleaner.

The implication of this is that it puts retailers in a severely restricted position. Yes, there are perfectly good MP3s form the likes of iRiver, Rio, Sony, Toshiba and a handful of others, but to have a truly competitive range most retailers would, if they’re being honest, say that an Apple account is crucial. Now, whilst this wouldn’t necessarily be a problem in other sectors, the fact that Apple is a computer and not an electronics company counts for a great deal. The computer industry, you see, generally works on far lower retail margins than the domestic electronics one. Rather than making a profit on the hardware, computer retailers build up their bank balances on the basis of software, accessories and, of course, warranties. Whilst money can be made by traditional hi-fi retailers on MP3 accessories, the other options are somewhat limited, leaving the product category as a less than desirable one in terms of profit.

For this reason the presence of MP3 players within the hi-fi retail sector is smaller than one might have expected. Computer retailers of course, stock the product – especially Apple ones. It also has a high presence amongst the large electrical retail chains. Economies of scale and huge buying power means that the Dixons, Currys and Comets of this world can afford to sell MP3 players and still make money. Take a look at the next sector down, though – the hi-fi chains with around 50 stores – and you’ll see a near total absence of the players.

It’s often not through trying, but as one such chain reported to me, when the weekly profits across 50 stores for the category was often between £50–£200 per week before distribution or store costs, it clearly isn’t a feasible product line to run. Instead, what this type of chain has turned to and, in general, is doing very well with, is the likes of plasma and LCD TV in conjunction with home cinema. They haven’t, by any means, abandoned stereo hi-fi altogether, but take a look at the stores and you can’t help but notice a smaller section of the floor space now taken up by, for want of a better term, traditional hi-fi separates.

The question, therefore, has to be asked where does this leave the independents? Well, in actual fact, it leaves them in a pretty strong position. Hi-fi separates were abandoned by most of the large electrical retailers some years ago. Try and find separates at your local John Lewis, Dixons, Currys or Comet and you’ll often look in vain. Where they do exist it’s often in numbers so small you could count them on one hand. Furthermore, the products are often out of date or ‘exclusive lines’ that are merely average designs sporting a premium badge.

Moving down to the next sector and, like I said, there is now less prominence given to hi-fi stereo. With larger displays of TVs and home cinema equipment, the choice of hi-fi stereo is inevitably squeezed. With such changes from above, this gives the independent hi-fi retailer great opportunities. Although it’s well documented that the hi-fi stereo business is a mature one and one that, at least has been, in decline, there are more enlightened independents that haven’t suffered. The market as a whole may be smaller, but larger stakes of it are up for grabs than ever before. Retailers who can offer a strong range, good customer service an advice, are in a very strong position indeed.

There are some excellent products out there right now and despite MP3 there is still a strong demand for quality hi-fi at home. Perhaps now is the time, Mrs Worthington, when it may not be such a bad time to put your daughter (or son) on the stage of independent hi-fi retailing. Happy shopping! ☺
“Yet another example of a true value product that’s intelligently packaged with just the right - and some unexpected - features. My hat’s off to the golden ears in Hong Kong.”

If you are using a solid-state amp now and wonder why your music experience doesn’t draw you in or doesn’t have the tone characteristic of a live concert, you’re likely missing is the pleasurable warmth that only tubes provide.

Engineered for years of satisfaction with pursuit to produce one of the finest Valve designer Alex Yeung is known in Hong Kong as the ‘Golden Ear’. If you are using a solid-state amp now and wonder why your music experience doesn’t draw you in or doesn’t have the tone characteristic of a live concert, you’re likely missing is the pleasurable warmth that only tubes provide.

Engineered for years of satisfaction with pursuit to produce one of the finest Valve designer Alex Yeung is known in Hong Kong as the ‘Golden Ear’.

Engineered for years of satisfaction with pursuit to produce one of the finest Valve designer Alex Yeung is known in Hong Kong as the ‘Golden Ear’.

Engineered for years of satisfaction with pursuit to produce one of the finest Valve designer Alex Yeung is known in Hong Kong as the ‘Golden Ear’.

Engineered for years of satisfaction with pursuit to produce one of the finest Valve designer Alex Yeung is known in Hong Kong as the ‘Golden Ear’.

Engineered for years of satisfaction with pursuit to produce one of the finest Valve designer Alex Yeung is known in Hong Kong as the ‘Golden Ear’.

Engineered for years of satisfaction with pursuit to produce one of the finest Valve designer Alex Yeung is known in Hong Kong as the ‘Golden Ear’.

Engineered for years of satisfaction with pursuit to produce one of the finest Valve designer Alex Yeung is known in Hong Kong as the ‘Golden Ear’.

Engineered for years of satisfaction with pursuit to produce one of the finest Valve designer Alex Yeung is known in Hong Kong as the ‘Golden Ear’.

Engineered for years of satisfaction with pursuit to produce one of the finest Valve designer Alex Yeung is known in Hong Kong as the ‘Golden Ear’.
In this heavily revised section, you'll find the great and the good from audio's glorious past. Most are seminal designs which have earned their place in hi-fi history, but you'll also see some oddities which aren't classic as such, but are great used buys. The year of introduction is given, alongside the original UK launch price. Think we've overlooked something? Then write in and let us know!

### DIGITAL

**CAMBRIDGE AUDIO CD11** 1986 £1500
Inspired Stan Curtis redesign of Philips CD104, complete with switchable digital filter. Lean but tight and musical performer.

**CAMBRIDGE AUDIO CD45** 1998 £200
A touch soft in the treble and tonally light, but outstanding in every other respect.

**LINN KARIK III** 1995 £1775
The final Karik was a gem. Superior transport gives a brilliantly tight, gritty dynamic sound, albeit tonally dry.

**MARANTZ CD73** 1983 £700
A riot of gold brushed aluminium and LEDs, this distinctive machine squeezed every last ounce from its 14x4 DAC, -super musical.

**MARANTZ SA-1** 2000 £5,000
The greatest argument for SACD. This sublime Kan Ishiwata design is utterly musically convincing with both CD and SACD, being most audiophile CD spinners hands down.

**MERIDIAN 207** 1988 £995
Beautifully built two-box with pre-amp stage. Very musical although not as refined as modern Bitstream gear. No digital output.

**MUSICAL FIDELITY TRIVISTA** 2002 £4000
When playing SACDs, the sweetest, most lucid and lyrical digital disc spinner we've heard. Old school stereo, pure DSD design. CD sound is up in the £1000 class, too! Future classic.

**MERIDIAN MCD** 1984 £600
The first British 'audiophile' machine was a sweeter, more detailed Philips CD100. 14x4 never sounded so good, until the MCD Pro arrived a year later.

### DACs

**CAMBRIDGE AUDIO DACMAGIC** 1995 £99
Good value upgrade for budget CD players with extensive facilities and detailed sonics.

**SONY CDP-101** 1992 £800
The first Japanese CD spinner was powerful and involving. Brilliant transport more than compensated for 16x2 DAC, and you even got remote control!

**SONY CDP-R1/DAS-R1** 1987 £3,000
Sony's first two-boxer was right first time. Tonal lean, but probably the most detailed and architectural sounding machine of the eighties.

**SONY CDP-701ES** 1994 £890
Sony's first ever bespoke high end audiophile machine used a 16x2 DAC to provide a clinically incisive sound; supreme build quality allied to the pure unadulterated luxury of a paperback-sized remote control.

**YAMAHA CD-X1** 1993 £340
Nicely built 16x2 machine with a very sharp and detailed sound; sometimes too much so. Excellent ergonomics, unlike almost every other rival of the time.

**QED DIGIT** 1991 £90
Budget bitstream performer with tweaks aplenty. Postion PSU upgrade makes it smooth, but now past it.

**ESOTERIC P0** 1997 £8,000
The best CD drive bar none. TEAC's Tokyo boys pushed the boat out in style. Brillantilly incisive, ridiculously over engineered.

**KENWOOD 9010** 1986 £600
The first discrete Jap transport was beautifully done and responds well to re-clocking even today.
PIONEER PL12D 1973 £36
The beginning of the end for the British turntable industry. When vinyl was the leading source, this brought new standards of noise performance and stability to the class, plus a low friction S-shaped tonearm. Later PL112D was off the pace compared to rivals.

DUAL CS505 1982 £75
Simple high quality engineering and a respectable low mass tonearm made for a brilliant budget buy. Polished, smooth and slightly bland sound.

GOLDRING LENCO 88/89 1963 £15.65
Simple, well engineered midweight with soft, sweet sound and reasonable tonaarms. Good spares and servicing support even today from specialists.

LINN AXIS 1987 £253
Simplified cut-price version of the Sondek complete with Akito tonearm better.

LINN SONDEK LP12 1973 £86
For many, the Brit superdeck; constant mods meant that early ones sound warmer and more lyrical than modern versions. Beguilingly musical but now off the pace.

TECHNICS SP10 1972 £400
Seminal Japanese engineering. Sonics depend on plinths, but a well mounted SP10 will give any modern a hard time, especially in respect of bass power and midband accuracy.

MARANTZ TT1000 1978 £N/A
Beautiful seventies high end belt drive with sweet and clean sound. Rare in Europe, but big in Japan.

REGA PLANAR 3 1978 £79
Brilliantly simple but clean and musical performer, complete with Acos-derived S-shape tonearm. 1983 saw the arrival of the RB300, which added detail at the expense of warmth. Superb budget buy.

GARRARD 301/401 1953 £19
Heavy metal - tremendously strong and articulate with only a veiled treble to let it down. In many respects, better than the seventies 'superdecks' that succeeded it.

ROKSAN XERXES 1984 £550
Supposedly the first to 'better' the LP12. Super tight and clean sound, with excellent transients. Less musical than the Sondek, but more neutral. Sagging plinth top-plates make them a dubious used buy.

THORENS TD124 1959 £N/A
The template for virtually every 1970s 'superdeck', this iconic design was the only real competition for Garrard's 301. It was sweeter and more lyrical, yet lighter and less impactful in the bass.

TOWNSEND ROCK 1979 £N/A
The product of academic research by the Cranfield Institute, this novel machine has an extremely clean and fluid sound. Substantially modified through the years, and capable of superb results even today.

TONEARMS

ACOS LUSTRE GST-I 1975 £46
The archetypal S-shaped seventies arm; good, propulsive and involving sound in its day, but ragged and undynamic now.

AT 1120 1978 £75
Fine finish can't compensate for this ultra low mass arm's limited sonics - a good starter arm if you've only got a few quid to spend.

ALPHASON HR1005 1981 £150
First class arm, practically up to present-day standards. Buy carefully, though, as there is no service available now. Totally under priced when new, exceptional.

SME SERIES III 1979 £113
Clever variable mass design complete with Titanium Nitride tube. Tried to be all things to all men, and failed. Charming nonetheless, with a warm and inoffensive sound.

HADCOCK GH228 1976 £46
Evergreen unipivot with lovely sweet, fluid sound. Excellent service backup.

LINN ITTOK LVII 1978 £253
Arguably the first 'superarm'; Japanese design to Linn specs made for a muscular, rhythmic sound with real dynamics. Now off the pace, but the final LVIII version worth seeking out.

NAIM ARO 1986 £875
Truly endearing and charismatic performer - wonderfully engaging mid-band makes up for softened frequency extremes.

TECHNICS EPA-501 1979 £N/A
Popular partner for late seventies Technics motor units. Nice build and Titanium Nitride tube can't compensate for middling sound.

INTEGRATED AMPLIFIERS/COMBOS

DELTTEC 1987 £1900
Fast, dry and with excellent transients, this first DPA integrated is the real deal for eighthies obsessives. Ridiculously punchy 80W per channel from a tiny, half-size box. Radical, cool and more than a little strange.
MISSION CYRUS 2 1984 £299

Classic eighties minimalism combines arresting styling with clean, open, lively sound. Further upgradeable with PSX power supply.

MUSICAL FIDELITY A1 1985 £350

Beginning Class A integrated with exquisite styling. Questionable reliability.

CONRAD JOHNSON MOTIV MC8 1986 £2,500

Minimalist, FET-based preamplifier from the Yank valve specialists is brilliantly neutral and smooth with a spry, light balance in the mould of Sugden high end stuff. Something of a curio, but worthwhile nonetheless.

CROFT MICRO 1986 £150

Budget valve pre-amp with exceptionally transparent performance.

LEAK POINT ONE STEREO 1958 £N/A

Good for their time, but way off the pace these days. Use of EF86 pentode valve for high gain rules out ultra performance. Not the highest-fi.

NAIM MAC25 1978 £N/A

The Salisbury company came of age with this, their classic high end pre. Brillantly fast and incisive sound that's a joy with vinyl but a tad forward for digital.

LECON AC1 1973 £N/A

Amazing styling courtesy of Allan Boothroyd can't disguise its rather cloudy sound, but a design classic nonetheless.

ROGERS CADET III 1965 £34

A brave attempt by the Glasgow boys to aspired to it.

CREEK CAS4040 1983 £150

Budget valve pre-amp with exceptionally clean MM/MC phono stage, sweet, warm a good introduction to valves.

LEAK STEREO 20 1958 £1

Excellent workaday classic valve amplifier modern sounding if rebuilt sympathetically, irrepressibly musical and fluid.

MCINTOSH MA6800 1995 £3735

Effortlessly sweet, strong and powerful with seminal styling to match.

SUGDEN A21 1969 £N/A

Class A transistor integrated with an eminently likeable smoothness and musicality. Limited inputs via DIN sockets.
The all-time classic valve amplifier, with a deliciously fluid and lyrical voice. In other respects though, it sounds hopelessly dated. Overhauling is de rigeur before use, using original parts if possible. Surprisingly crisp and musical sound, that’s far more modern than Quad IIs. Deeply impressive when in fine fettle.

The warm, atmospheric sound is further proof of Naim’s proficiency with tuners. Allied to low prices and good availability this budget analogue esoterica. Needs a partner the original Naim NAIT – yes, really! Fine sound, although off the pace these days. Naim-designed MC phono stage built to Naim ISO 1988 £1,149

This Tom Evans-designed black box started the trend for high performance outboard phono stages. Charismatic, musical and punchy - if lacking in finesse. Superb mid-price British audiophile design, with a nod to high fidelity and detail, makes this a great budget audiophile classic. Partner with a Goldring G1043 for an unbeatable budget combination.

At the time, very possibly the least cool looking of all manufacturers, Marantz started the trend for high performance outboard decoder they’re deliciously retro easy via phono multiplex socket. Fed by a modern outboard decoder they’re deliciously lucid with true dimensionality.

At the time, very possibly the least cool looking of all manufacturers, Marantz started the trend for high performance outboard decoder they’re deliciously retro easy via phono multiplex socket. Fed by a modern outboard decoder they’re deliciously lucid with true dimensionality.

Another of the serious classic solid-state amplifiers. Boasts the usual high end Jap package of fine sound, brilliant sensitivity and superb build.

Series I is an interesting ornament but limited to 88-100MHz only II and III are arguably the best-sounding tuners ever. Adaptation for stereo easy via phono multiplex socket. Fed by a modern outboard decoder they’re deliciously lucid with true dimensionality.
CLASSICS

ANALOGUE RECORDERS

YAMAHA TC-800GL 1977 £179
Early classic with ski-slope styling courtesy of Mario Bellini. Middling sonics by modern standards, but cool nonetheless!

SONY WM-D6C 1985 £290
Single capstan transport on a par with a Swiss watch, single rec/playhead better than most Naks. Result: sublime.

AIWA XD-009 1989 £600
Aiwa's Nak beater didn't, but it wasn't half bad nonetheless. Massive spec even included a 16x4 DAC!

NAKAMICHI CR-7E 1987 £800
The very best sounding Nakamichi ever - but lacks the visual drama of a Dragon.

PIONEER CTF-950 1978 £400
Not up to modern standards sonically, but a great symbol of the cassette deck art nonetheless.

REVOX A77 1968 £145
The first domestic open reel that the pros used at home. Superbly built, but sonically off the pace these days. B77 better, but couldn't match the Japanese.

LOWTHER PM6A 1957 £18
This seminal full-range driver is still manufactured. High sensitivity, as fitted to many classic horn designs.

TANNHOI WESTMINSTER 1985 £4500
Folded horn monsters which certainly sound good if you have the space. Not the last word in tauntess but can drive large rooms and image like few others.

DIGITAL RECORDERS

SONY MDS-JESSSES 2000 £900
The best sounding MD deck ever, thanks to awesome build and heroic ATRAC-DSP Type R coding.

PIONEER PDR-555RW 1999 £480
For a moment, this was the CD recorder to have. Clean and detailed.

MARANTZ DR-17 1999 £1100
Probably the best sounding CD recorder made; built like a brick outhouse with a true audiophile sound and HDCD compatibility.

KENWOOD DM-9090 1997 £500
Serious and sophisticated sound thanks to well implemented ATRAC 4.5; surprisingly musical MD recorder.

SONY TCD-8 DATMAN 1996 £599
Super clean sound makes this an amazing portable, but fragile.

LOWTHER PM6A 1957 £8
EACH
This seminal full-range driver is still manufactured. High sensitivity, as fitted to many classic horn designs.

TANNHOI WESTMINSTER 1985 £4500
Folded horn monsters which certainly sound good if you have the space. Not the last word in tauntess but can drive large rooms and image like few others.

REVOX A77 1968 £145
The first domestic open reel that the pros used at home. Superbly built, but sonically off the pace these days. B77 better, but couldn't match the Japanese.

SONY WM-D6C 1985 £290
Single capstan transport on a par with a Swiss watch, single rec/playhead better than most Naks. Result: sublime.

AIWA XD-009 1989 £600
Aiwa's Nak beater didn't, but it wasn't half bad nonetheless. Massive spec even included a 16x4 DAC!

NAKAMICHI CR-7E 1987 £800
The very best sounding Nakamichi ever - but lacks the visual drama of a Dragon.

PIONEER CTF-950 1978 £400
Not up to modern standards sonically, but a great symbol of the cassette deck art nonetheless.

SONY MDS-JESSSES 2000 £900
The best sounding MD deck ever, thanks to awesome build and heroic ATRAC-DSP Type R coding.

PIONEER PDR-555RW 1999 £480
For a moment, this was the CD recorder to have. Clean and detailed.

MARANTZ DR-17 1999 £1100
Probably the best sounding CD recorder made; built like a brick outhouse with a true audiophile sound and HDCD compatibility.

KENWOOD DM-9090 1997 £500
Serious and sophisticated sound thanks to well implemented ATRAC 4.5; surprisingly musical MD recorder.

SONY TCD-8 DATMAN 1996 £599
Super clean sound makes this an amazing portable, but fragile.

LOWTHER PM6A 1957 £8
EACH
This seminal full-range driver is still manufactured. High sensitivity, as fitted to many classic horn designs.

TANNHOI WESTMINSTER 1985 £4500
Folded horn monsters which certainly sound good if you have the space. Not the last word in tauntess but can drive large rooms and image like few others.

REVOX A77 1968 £145
The first domestic open reel that the pros used at home. Superbly built, but sonically off the pace these days. B77 better, but couldn't match the Japanese.

SONY WM-D6C 1985 £290
Single capstan transport on a par with a Swiss watch, single rec/playhead better than most Naks. Result: sublime.

AIWA XD-009 1989 £600
Aiwa's Nak beater didn't, but it wasn't half bad nonetheless. Massive spec even included a 16x4 DAC!

NAKAMICHI CR-7E 1987 £800
The very best sounding Nakamichi ever - but lacks the visual drama of a Dragon.

PIONEER CTF-950 1978 £400
Not up to modern standards sonically, but a great symbol of the cassette deck art nonetheless.

REVOX A77 1968 £145
The first domestic open reel that the pros used at home. Superbly built, but sonically off the pace these days. B77 better, but couldn't match the Japanese.

SONY WM-D6C 1985 £290
Single capstan transport on a par with a Swiss watch, single rec/playhead better than most Naks. Result: sublime.

AIWA XD-009 1989 £600
Aiwa's Nak beater didn't, but it wasn't half bad nonetheless. Massive spec even included a 16x4 DAC!

NAKAMICHI CR-7E 1987 £800
The very best sounding Nakamichi ever - but lacks the visual drama of a Dragon.

PIONEER CTF-950 1978 £400
Not up to modern standards sonically, but a great symbol of the cassette deck art nonetheless.

REVOX A77 1968 £145
The first domestic open reel that the pros used at home. Superbly built, but sonically off the pace these days. B77 better, but couldn't match the Japanese.
**WHAT'S HOT AT THE TUBE SHOP**

They're now considered essential as far as I'm concerned, and bring a new meaning to the term "Simply the best!"

Roy Gregory - Hi-Fi+ magazine

---

**WHAT'S COOL AT THE TUBE SHOP**

Cryogenically treated tubes really make a difference!
Read all about it online: www.cryogenictubes.com

---

**State of The Art Be-Spoke Audio Cables**
Hand Built in Britain

---

**Pure Silver & Cryogenic Treatment Specialists**
For Greater Enjoyment of The Recorded Arts
Contact Mark or Jan
0115 8779089 or 07967 859333
www.the-missing-link.net

---

**The Missing Link**

---

**PHONE ACCESSORIES**

- Goldring PA1 Phone Amplifier £60
- Goldring Super Exstatic Brush £13
- Shure SFG2 Stylus Force Gauge £24
- Mitzy Pikill II Roller Plus Refill £16
- Mitzy Zerostat Neutralising Gun £38
- Bib Universal Standard Headshell £15
-GED J2P Mini-Phono Interconnect £22

---

**HEADPHONE SELECTION**

<table>
<thead>
<tr>
<th>Supplier</th>
<th>Model</th>
<th>Price</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grado</td>
<td>Award</td>
<td>£75</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Series</td>
<td>£80</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Series</td>
<td>£90</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Series</td>
<td>£125</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Series</td>
<td>£150</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Series</td>
<td>£150</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Series</td>
<td>£175</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Series</td>
<td>£225</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Series</td>
<td>£325</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Series</td>
<td>£350</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Series</td>
<td>£450</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Series</td>
<td>£750</td>
<td></td>
</tr>
</tbody>
</table>

---

**REPLACEMENT STYLI**

- Swiss Quality Diamond Styl
- ADC XLM Mk III £17
- Akai AN 5, AN 60 £13
- ARO, AN 70 £15
- Alwa AN1 £13
- Dual DN 145 E, DN 165 E £17
- JVC DT 55, DT 60 £13
- National EPS 24 CS, P 30 D, P 33 D £13
- Ortofon F515/VMS20 EII, OM20 £17
- Pioneer PN 210/220/240 £13
- Shure N 135 C, SC 55 C £13
- N 175 ED T2, N 75 EJ 72 £17
- N 95 ED/EJ, N 75 3 (78) £17
- VN 35 E £20
- N 97 HE, VN 35 HE £22
- Sony NG 142155 G, DN334 £13
- NG 143150/200 G £15
- Stanton D 681 EEC £21

---

**HI-FI ACCESSORIES**

- Goldring PA1 Phone Amplifier £60
- Goldring Super Exstatic Brush £13
- Shure SFG2 Stylus Force Gauge £24
- Mitzy Pikill II Roller Plus Refill £16
- Mitzy Zerostat Neutralising Gun £38
- Bib Universal Standard Headshell £15
- GED J2P Mini-Phono Interconnect £22

---

**GEX** - Goldring new for old exchange price for any make/type of cartridge
**EX** - Exchange price for any moving coil cartridge

---

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

---

**TUBE SHOP.COM**

---

**State of The Art Be-Spoke Audio Cables**
Hand Built in Britain

---

**Pure Silver & Cryogenic Treatment Specialists**
For Greater Enjoyment of The Recorded Arts
Contact Mark or Jan
0115 8779089 or 07967 859333
www.the-missing-link.net

---

**Hi-Fi World November 2005**
www.hi-fiworld.co.uk
**CLASSICS**

**MAGNEPLANAR SMGA198X** £800
Technological loudspeaker with genuinely musical abilities; fast, smooth, open, dry.

**CELESTION SL6** 1984 £350
Smallish two way design complete with aluminium dome tweeter and plastic mid-bass unit set the blueprint for nineteen eighties loudspeakers. Very open and clean sounding, almost course at high frequencies and limp in the bass. Speakers would never be the same again...

**MISSION 770** 1980 £275
Back in its day, it was an innovative product and one of the first of the polypropylene designs. Warm, smooth, clean and powerful sound.

**MISSION 752** 1995 £495
Cracking Henry Azima-designed floorstanders combined HDA drive units and metal dome tweeters with surprisingly warm results. Benign load characteristics makes them great for valves.

**HEYBROOK HB1** 1992 £130
Peter Cuneau-designed standmounters with an amazingly lyrical yet decently refined sound. Good enough to partner with very high end ancillaries, yet great with budget kit too. A classic.

**CELESTION SL4** 1984 £350
Smallish two way design complete with aluminium dome tweeter and plastic mid-bass unit set the blueprint for nineteen eighties loudspeakers. Very open and clean sounding, almost course at high frequencies and limp in the bass. Speakers would never be the same again...

**LEAK SANDWICH** 1961 £39
Warm sounding infinite baffle that, with a reasonably powerful amplifier can sound quite satisfying.

**QUAD ESL63** 1980 £1200
An update of the ESL57, with stiffer cabinets. Until the 989, the best of the Quad electro-statics.

**YAMAHA NS1000** 1977 £532
High tech Beryllium midband and tweeter domes and brush 12" woofers in massive sealed mirror image cabs equals stunning transients, speed and wallop allied to superb transparency and ultra low distortion. Partner carefully!

**MISSION X-SPACE** 1999 £499
The first mass production sub and sat system using NXT panels is a sure-fire future classic - not flawless, but a tantalisingly unboxy sound nevertheless!

---

**SOUND SYSTEMS**

**Arcam DV27 DVD Player (6mth G/Tee)** (159.00) £49.00 Naim CD5i CD Player - E/Dem (1Yr G/tee) (825.00) £599.00

**Arcam FMJ CD33 CD Player (2Yr G/tee)** (134.00) £94.00 Naim Nait Si Amplifier - E/Dem (1Yr G/tee) (699.00) £525.00

**Arcam FMJ AV8 Preamp Amplifier THX Ultra (2Yr G/tee)** (314.00) £219.00 Naim Ariva Speakers - Maple E/Dem (1Yr G/tee) (1250.00) £795.00

**BW 703 Speakers - Cherry (2Yr G/tee)** (2000.00) £1399.00 Naim Flatcap 2 Power Supply - E/Dem (1Yr G/tee) (550.00) £30.00

**BW Nautilus Sig 805 - Tigers Eye inc Stands (2Yr G/tee)** (2300.00) £1675.00 Naim NAC 552 Preamp Amplifier - E/Dem (2Yr G/tee) (12000.00) £795.00

---

**SOUND•SYSTEMS**

**CALL SALES:(020) 8318 5755 or 8852 1321**

248 Lee High Road, London, SE13 5PL

---

**Billy Vee**

**SAVE UP TO 50% ON EX-DISPLAY BARGAINS**

**SOME AS NEW (MARKED)** 24HR DEL ONLY £5 CHECK STOCK BEFORE ORDER S/H = Pre-Owned Unit

---

**www.hi-fiworld.co.uk**

NOVEMBER 2005 HI-FI WORLD 89
Sovereign’s years of experience testing & listening to a wide variety of valves have revealed that only a very small portion of those tubes commercially available are suitable for the demanding audiophile. Sovereign sets a standard of performance based on original British military specifications where the type was available or EIA of America specifications for non-British types. All are carefully selected by experts using a combination of proven test technology & experience gained in over 40 years of experience in military & industrial British manufacture & design of thermionic valves. The valves are tested for noise, microphony, grid leakage, symmetry between two halves on double triodes & audio performance. (Analyzing distortion properties in the audio bandwidth.) Anode current (Ia) & transconductance (Gm) are measured at a given audio excitation. All small pin devices B9A etc. are heavily plated in 24 Carat Gold increasing the surface area of conduction.

Once selected the valves are then processed in a Deep Cryogenic chamber, using a special process incorporating liquid nitrogen & other proprietary techniques. The cryogenic super cooling treatment pre-ages the devices. When valves are originally manufactured, the small internal metal parts are riveted and welded together causing stress fractures. Cryogenic treatment removes these metal distortions, increasing audio performance.

Valves have a great effect on the sound of your amplifier, the choice of a premium audio device is paramount. The use of commercial grade devices could impair the stability of sound quality over the operating life of the unit. On average, only a 30% yield of 0-100,000 production run of valves is fully suitable for audio use, even for NOS valves (New Old Stock).

Don’t waste years listening to those valves you thought were good enough, select Sovereign as your preferred choice of Valve & reap the audible benefits these superb devices will bring to your system.

CALL 01269 844771 www.tubetechnology.co.uk

The difference is profound
The new Cartridge Man Cartridge Isolator now available

020 8688 6565
Website: www.thecartridgeman.com

Listen to the music... NOT the components
If you want the best possible sound from your loudspeakers then look no further than ClarityCap audio grade capacitors.

Handmade in the UK from metallised polypropylene film in axial or new ‘disc shaped’ formats, these capacitors offer an extremely wide standard range of capacitances and voltages or they can be custom-made to your own specifications.

Already invested in by some of the leading names in the loudspeaker industry, isn’t it time you tested them!

To receive your 16-page technical brochure please telephone 01233 731137, email: enquiries@expotscomponents.com or visit our website: www.claritycap.co.uk

The Cartridge Man

The difference is profound
The new Cartridge Man Cartridge Isolator now available

020 8688 6565
Website: www.thecartridgeman.com

Listen to the music... NOT the components
If you want the best possible sound from your loudspeakers then look no further than ClarityCap audio grade capacitors.

Handmade in the UK from metallised polypropylene film in axial or new ‘disc shaped’ formats, these capacitors offer an extremely wide standard range of capacitances and voltages or they can be custom-made to your own specifications.

Already invested in by some of the leading names in the loudspeaker industry, isn’t it time you tested them!

To receive your 16-page technical brochure please telephone 01233 731137, email: enquiries@expotscomponents.com or visit our website: www.claritycap.co.uk

Absolute Demos

Audiogram MB2- Integrated Amplifier £265.00
Audiogram MB1- Amplifier £219.00
Audio research VT100 MKIII - Valve Amplifier £149.00
Audio research 150.2 - Class T digital amplifier £4025.00
Copland CSA301 MKI - Valve Preamplifier £699.00
Copland CSA303 - Hybrid Preamplifier £650.00
Copland CTA504 - Valve Amplifier £1099.00
Copland CVA 535- 5 X125W amplifier £1700.00
Jadis Orchestra - CD Player £999.00
Krell KAV250P - Preamplifier £1499.00
Krell KPS 256a-Preamplifier/CD player CAST2 £1899.00
Krell KSL - Preamplifier £800.00
Martin Logan Odyssey - Electrostatic Loudspeakers £4700.00
Martin Logan Quest - Electrostatic Loudspeakers £2400.00
Martin Logan Script - Electrostatic Loudspeakers £1225.00
Mcintosh C200 - 2 chsais Preamplifier £4200.00
Mcintosh MC2000 - Ltd. edition Valve Amplifier £9000.00
Mcintosh CR16 - Multizone control system £2299.00
Mcintosh CS56 - Amplifier £1719.00
Mcintosh MC202 - Amplifier £1999.00
Mcintosh MHT100 - Home theatre processor £3199.00
PS Audio Ultradac II - DAC £999.00
PS Audio Reference Link - Digital Preamp £1999.00
Sonus Faber Concertino Home Loudspeakers £399.00
Thetis Digital Drive -CD/DVD Drive £2999.00
Wilson Audio CUB - Loudspeakers Silver £2300.00
Wilson Audio CUB II withsstands Black £5499.00
Wilson Audio System 6 - Loudspeakers Cashmere £12500.00
Wilson Audio Wett II Loudspeakers Black £5400.00
Z Systems RDQ1- Transparent Digital Equalizer £1850.00

NO GREY IMPORTS - ALL EQUIPMENT COMES WITH 1 YEAR FULL WARRANTY

90
These are the best products we’ve heard that are currently on sale in the UK, complete with the date they were originally launched and their current retail prices. Watch out for regular updates...!

**TURNTABLES**

- **AN TT1/ARM ONE IQ 1998 £725**
  - Redisigned Systemdek IX now out of the pack, but the arm and cartridge are both star performers.

- **LINN LP12 LINGO 1973 £1100**
  - The quintessential belt drive superdeck offers a beguilingly musical midband at the expense of chunky bass and nebulous imaging. Latest Lingo brings a new lease of life, with even more punch and polish.

- **MICHELL TECNODEC 2003 £575**
  - Superb introduction to Michell turntables on a budget. Top quality build and elegant design make it the class of the mid-price field right now.

- **MICHELL GYRODEC SE 2002 £870**
  - Its beauty is more than skin deep - superbly built and finish allied to clever design equals class leading performance. Latest DC motor with ‘Never Connected’ PSU make it all the more unassailable.

- **MICHELL ORBE SE 2002 £1916**
  - Cost-no-object evolution of the Gyro adds massy acrylic platter and two-stage isolation. Fantastically capable all rounder with commanding, powerful, detailed sound that gets the best from almost any arm and cartridge.

**CLEARAUDIO REFERENCE 1996 £64,070**
- Fine bass articulation and power allied a stunningly open and atmospheric midband and beautifully etched treble makes this one of the very best sounding turntables at any price. Michell’s Orbe offers marginally more impactful bass, but can’t touch that amazing mid-end. Exquisite.

- **ORIGIN LIVE AURORA GOLD 2004 £1470**
  - Semi-light entry level high-end deck showing Mark Baker’s characteristically obsessive attention to detail. The result is an extremely wide open and natural sounding machine that lacks the Michell GyroDec’s slightly ‘mechanical’ nature – along with some of its scale and accuracy. Ideal for those seeking that classically beguiling vinyl sound.

- **GOLDRING GR-1 2004 £140**
  - Essentially a Rega P2 built down to very low price and bundled with a decent Goldring MM, this is cracking value for money. Head and shoulders above its immediate rivals, it offers a surprisingly musical and detailed sound that will stun those new to vinyl – which is precisely what it was designed to do.

- **THORENS TD190 2003 £290**
  - Ease of set up and use, allied to fully automatic operation mean that, although hardly the last word in performance, this deck is most certainly a model of convenience.

- **ROKSAN RADIUS S 2003 £750**
  - Fantastic value allied to intelligent, interesting and ‘out of the box’ design makes for a wonderful entry-level superdeck. Open and musical sound is more inviting that Michell GyroDec rival, and the bundled Nima Unipivot arm is a superstar.

- **MICHELL TECNOARM A2003 £399**
  - John Michell’s brilliant reworking of the Rega RB250 theme, using blasting and drilling techniques usually seen in motorsport! The result is the best sounding arm at £400, and as good as most at four times the price. Runs SME V very close in all except bass, and better for its musically. Stunning.

- **ORIGIN LIVE AURORA 2003 £1690**
  - Cleaner than a Line LP12 and warmer and more mellifluous than a Michell GyroDec – but lacks the latter’s incision and dimensionality. When fitted with an OL1 arm, this package is all many will ever want...

- **CLEARAUDIO REFERENCE 2003 £4,000**
  - The company’s best value vinyl spinner; good enough to get the best from almost any tonearm and cartridge combination. Brilliantly open and neutral sound; superlative pitch stability; stunning build and styling – Michell Orbe does most of this at half the price, however.

**TECHNICS SL1200/111 1973 £395**
- Sleek build makes it a respectable performer; although the cheapo arm limits it – fix a Rega RB250 and it’s suddenly a serious mid-price machine.

**PRO-JECT DEBUT II PHONO SB 2002 £170**
- Puss-free all in one starter turntable, complete with built-in phono stage. Not a star performer, but a fine mid-range model.

- **REGA P3 2000 £298**
  - Great entry level audiophile deck with fine bundled tonearm. Tweaktable, and responds well to careful siting on a Base platform.

- **REGA P25 2001 £619**
  - Until the TecnoDec, the best mid-price turntable package. Fine build and elegant styling. Clean, open sound but limited at frequency extremes in absolute terms.

- **SME MODEL 10A 1995 £3333**
  - Exquisitely engineered deck and arm combo, but dry and clinical sounding compared to rivals. Accomplished performer with classical music, nonetheless.

**HADCOCK 242 SE 2000 £649**
- Latest of a long line of unipivots, with added mass, revised geometry and better finish. Musical like few others at or near the price.

- **LINN EKOS 1987 £1700**
  - Saddle mods over the years, including revised bearings and the recent new wiring has kept it a serious contender in the superarm stakes. Lacks the SME’s slam, the OL’s clarity or the ARCo’s emotion, but has a feisty musicality all of its own.

**ORIGIN LIVE ILLUSTRIOS 2002 £1570**
- A modern superarm with battleship build. Extremely strong, even and open sound in the mould of the late, lamented Zeta, plus fine tonal colouring. Exquisite.
STANDARDS

NAIM AR0 1987 £1425
Charismatic unipivot is poor at frequency extremes but sublime in the midband; truly emotive and insightful.

ORIGIN LIVE SILVER 2502001 £625
This fully developed and expertly fretted Rega boasts a superbly even, transparent and tuneful sound. Gives away only a small degree of finesse and dimensionality to top arms.

REGA RB250 1984 £112
Sold through Moth Marketing, this is capable far beyond its price point, with a tight, lean and detailed sound. Responds brilliantly to Origin Live counterweights, modification, and well to rewiring.

SME 309 1989 £677
Entry level SME complete with cost-cut aluminium armtube and detachable headshell. Tight, neutral sound with good tonality, but lacks the IV's pace and precision.

SME SERIES IV 1988 £1127
Offers nine tenths of the SME IV's magic at just over half price. Exquisitely built and finished, and a design classic. Faces stiff competition these days, but lovely nevertheless.

SME SERIES V 1987 £1614
The so-called Best Pickup Arm in the World isn't, but comes close. Vice-like bass with incredible weight, ultra clear midband and treble. Does everything except beguile the listener.

CARTRIDGES

ORTOFON KONTRA 'B' 1999 £720
Surprisingly articulate performer by Ortofon standards. All the brand's usual polish and detail allied to real vim. Loves making music!

AUDIO TECHNICA AT-110 1984 £29
Great starter cartridge that's refined, detailed and musical beyond its price.

DYNAVECTOR DV10XS2003 £250
A distant descendant of the classic Ultimo 10X, this has warmth and sweetness in spades, allied to a punchy bass. Beats Linn.404 comfortably.

GOLDRING G1042 1994 £135
One of the best MMs going, with sweet and extended treble and punchy, muscular bass.

LYRIA LYDIAN BETA 1980 £600
An altogether more beguiling listen than the MC305, although not quite as incisive. Superior all rounder, nonetheless.

SUMIKO BPS 1995 £250
Charismatic performer with rhythm aplenty, but in other respects way off the pace – lacks smoothness and sophistication of the DV10XS.

LYRA PARRASSUS DCT1997 £1805
Jonathan Carr's masterpiece is a brilliantly lyrical and fluid performer, with a deliciously sweet tone and immense subtlety and polish.

ORTOFON MC25FL 1994 £285
Strong budget MC with a cleaner and more detailed sound than the Dynavector; more sterile and less emotive, however.

ORTOFON MC30 SUPR'1995 £550
Beautifully clean and detailed device with real finesse, albeit a tad mechanical sounding.

DYNAVECTOR DV20X-M2003 £395
The best modern budget MC combines deliciously sweet sound with fantastic get-up-and-go. High output version works a treat with valve phono stages too.

MUSIC MAKER 1999 £575
When mated with a good quality arm, this hand finished high-output pick-up gives an ear-boggling account of itself. Very high compliance ensures maximum information retrieval. An absolute (grain orientated) gem.

SHURE V15XMR 1994 £350
The most musical MM yet made – brilliantly dynamic and punchy in the classic Shure mould, yet refined and tidy too.

KOETSU EM 2004 £1,400
Although the new Koetssus have lost some of their 'romance', you'll not hear a more lyrical and emotive performer. Sturdily 'analogue' nature makes rival Ortofons and Clearaudio sound frigid.

ORTOFON KONTRA PUNKY C 2004 £1,000
The most secure tracking MC we've heard; its super clean, fast, detailed and neutral sonics make it a brilliant partner to warmer sounding turntables.

DIGITAL DISC PLAYERS

CREEK CD501I 2004 £699
Extensive revisions make this an altogether more beguiling machine, and one of the best at its price. Extremely musical sound that's surprisingly upfront for a Creek design. Excellent mid-price purchase, with only its Marantz rival to challenge it!

CYRUS CD8 2003 £1000
Highly incisive, engaging, gutsy and dynamic sound, but needs careful matching to smooth ancillaries. Optional PSX-R adds bass and dimensionality.

LINN GENKI 1999 £995
Undeniably fast, lithe, musical and fun - but some won't take to its dry, wry character. Works best in all-Linn systems, where it really rises to the challenge!

ARCAM FMJ CD337 2003 £1,200
Supremely detailed midband allied to excellent bass extension makes this a powerful musical machine in the best traditions of Arcam CD spinners. Nothing to criticise at the price, everything to recommend it!

LINDYEM 1999 £1950
Has the brilliant focus and clarity of the previous Karik IV with a dose more tonal richness and polish. More grip and poise than most at any price - still superb!

MARANTZ CD17 II 2002 £800
Overlooked midweekweight boasts a truly beguiling sound with lots of tonal flavour. Sits awkwardly between the £600 and £1000 price points, where some brilliant value buys reside, though.

NAIM CDX2-XP52 2003 £4950
A fine high end machine, but add an XP52 and it becomes one of the most characteristically engaging of any mid-price CD players we’ve ever heard. Plays music with such passion!

PHILIPS DVD9635A 2003 £400
Creamy CD sound allied to superb SACD and DVD video playback makes this brilliant value for money.

REGA PLANET 2002 £498
Rhythmic and beguiling performer; although lacks the warmth of tone needed to better its Marantz rival. Superb ergonomics and design, nonetheless.

MUSICAL FIDELITY TRI-VISTA2I DAC 2003 £1200
Superbly neutral and expansive sound makes this off-board digital-to-analogue converter an easy upgrade to any mid-price CD player – fed by a decent transport, few 16bit players at any price come close.

CAMBRIDGE AUDIO 640C 2003 £250
Tremendously well-rounded yet engaging sound makes this the best budget silver disc spinner by far. Build quality is excellent at the price, and the styling bang up to the minute. Blistering value for money.

CREEK CD501I 2004 £699
Extensive revisions make this an altogether more beguiling machine, and one of the best at its price. Extremely musical sound that's surprisingly upfront for a Creek design. Excellent mid-price purchase, with only its Marantz rival to challenge it!

DENON DVD-2200 2003 £499
Superb do it all mid-price player; fine DVD- A and SACD sound allied to excellent video performance will be all many could ever want; Ultimately it's a little bright and mechanical sounding, but you have to go into high end territory to truly better it. Stunning value.

REGA JUPITER 2002 £1000
A Planet on steroids, this machine adds depth and breadth to its baby brothers already impressive sound. Good, but facing stiff competition.

TRI-VISTA2I DAC 2003 £1200
Superbly neutral and expansive sound makes this off-board digital-to-analogue converter an easy upgrade to any mid-price CD player – fed by a decent transport, few 16bit players at any price come close.

92
PIONEER DV-868AVI 2003 £799
Pioneer’s most accomplished mid-price machine to date, this boasts full DVD-A/SACD playback, a wetter of facilities and all-important HDMI video and i-LINK audio digital outputs, making it nigh-on future-proof. Factor in fine – if not outstanding - sound and superb pictures and it’s practically impossible to fault.

SONY SCD-EX790 2003 £250
Quite unlike any other budget Sony CD player we’ve heard, here’s a very ‘analogue’ sounding machine that’s smooth and warm and even, Factor in fine SACD playback and this machine is a brilliant budget buy – unless you want DVD-Audio which is, it lacks.

MARANTZ CD7300 2003 £350
Superlative build and styling for the money, and the sound is as good as you’ll get below £600. Smooth, detailed and engaging beyond its price.

MUSICAL FIDELITY X-RAVY3 2004 £990
Sinking looking mid-price stereo with very even, accurate and even sonics; perfect for those seeking detail and neutrality over character and/or colour.

NAIM CDSI 2004 £825
The most engaging mid-price CD player on the market, but with a surprisingly velvety sound. Delightful build and iconic styling make this one of Salisbury’s true classics.

PIONEER DV-8681 2003 £800
The best mid-price universal player right now; CD sound is respectable, SACD and DVD-A impressive and the video truly special. Does everything very well for the price.

SHANLING SCD-T200CT 2004 £1,150
Superb SACD player with tube output stage; arresting looks and truly special sound; be sure to go for 3DAcoustics version for best sound and UK aftersales support.

SONY SCD-XA1000ES 2003 £600
Surprising mid-price SACD player with multi-channel capability; sweet sound; not the best at the price but certainly the most versatile.

SONY SCD-XA9000ES 2003 £1,400
Stick, beautifully built high end SACD player with very transparent, if rather dry, sound. Unexpectedly sweet CD playback but not the most gripping at the price.

STELLO DP-200 2004 £1,495
Brilliant do-it-all upsampling DAC preamp with headphone output and phono in. One of the best digital to analogue converters around, allied to mind-boggling flexibility.

DIGITAL RECORDERS

APPLE IPOD 40GB £399
Genre-defining best of breed, thanks to supreme ergonomics and build allied to fine sound.

PIONEER PDR-609 2001 £200
Brilliant value CD recorder that makes excellent recordings from its digital inputs. Half decent digital converters, too.

PHILIPS DVDR880 2003 £370
Poor CD audio playback, but makes great DVD video recordings and boasts fine ergonomics. Top AV value.

SONY RCD-W3 2002 £250
Usual superb Sony ergonomics make for nonsensical budget buy, fine direct digital copies, but analogue input poor. Middling sonics, but there’s a digital output!

YAMAHA CDR-HDH1300E2002 £600
HD means MID-style ease of editing, but compromises recording quality ever-so-slightly. Add decent CD replay and it’s a fine all rounder nonetheless - top value.

PHONO STAGES

CREEK OBH-215E 2003 £250
Musically enjoyable yet highly refined for the price - a superb buy, Gives the Dino a real hard time.

EAR 834P 1993 £400
Classic tube design with a deliciously warm and expansive sound - shame about the loose bass and veiled treble!

LINN LINTO 2000 £900
A musical and incisive performer, with more speed than the Delphinis at the expense of detail and tonal colour.

QED DISC SAVER 1995 £35
Rhythmic, bouncy sound via battery, although it’s bright and forward. Great value, but £100 more on the X-LP is well worth it!

TRICHORD DINO 2002 £299
Great all rounder with switchable MM/MC. Fast, fluid and smooth like no others at the price.

TRICHORD DELPHINI 2003 £995
The very latest ‘Never Connected’ variant is easily the best, bringing velvety smoothness to an already refined and engaging performer. Neutral to a fault - some will mourn the passing of the charismatic ISO.

MUSICAL FIDELITY XLPVS3 2003 £249
Fine all rounder at the price, which a surprisingly full-bodied sound that’s smoother than the Creek but a tad less engaging. Only Trichord’s Dino, with its easy upgradability for just £50, reflects badly on this fine bit of kit.

PROJECT PHONOBOX LE2004 £99
Great little box that improves on most budgeted phono stages found in budget integrated amplifiers, adding detail and definition and a measure of smoothness too. If £100 is all you’re prepared to spend, then do it happily on this, but you’ll get obviously better results from the £250 brigade.

WHEAT AUDIO P5.20 /MSU.20 2004 £1,000
Disarmingly clean, smooth, open sound makes this the very best phono stage we’ve auditioned to date, but some will still prefer the gutsier feel of the Trichord Delphini.

GRAHAM SLEE ERA GOLD V 2004 £640
Wonderfully warm, open and musical nature makes this an essential audition for those wanting a top value mid-price phono stage.

AMPLIFIERS

ARCAM DVA A65 PLUS 2002 £370
Classic budget Arcam loo - decently sweet and open with sensable facilities and plenty of power.

ARCAM FMJ A32 2001 £1,150
For those who desire serious power and lady-rhinestone facilities over outright clarity or grip. A very impressive all rounder with an unusually muscular power amp at this price.

AUDIO NOTE QTO SE 2000 £1,199
This baby tuber is beautifully sweet and creamy, but lacks solid-state's clarity, detail and incision. Low, low power means speaker choice critical.

AUDIO NOTE SORO SE2000 £1,699
Wonderfully out-of-the-box sounding tube middleweight is all about sweetness and fluidity. Limited power and loose bass, but little the worse for it.
STANDARDS

CYRUS 6  2003  £600
Cracking do-it-all mid price design, bringing svelte sound, good connectivity and upgrade ability and stunning style and build.

CYRUS 8  2003  £800
Unusually warm and lyrical for a solid-state, with decent power and punch. PSK-R adds dynamics, detail and dimensionality.

MERIDIAN 551  1994  £895
Everygreen throughout; is a serious performer even now. Tautly a tad dry, it’s still very smooth and svelte with bags of detail and grip. Class act.

SUGDEN A21A  1993  £1020
The most musical amplifier at the price, bar none. Delicately sweet Class A sound is smooth, sweet and wonderfully transparent with true tonal colour. Low power, so match carefully.

AUDIO RESEARCH VS55 2003 £2,095
The Naim NAP250’s tubular output is enough power to really be a brilliant all round amplifier. Lacks the subtlety and finesse of the low powered single-ended brigade but does up for it with sheer brio.

CREEK A80R  2004  £550
Consistently smooth yet engaging sound makes it a serious player at the price, but don’t expect Creek’s traditional sumptuousness. Fine value nonetheless.

MONORIO MC207  2003  £1,100
Powerful, muscular sound allied to real finesse makes this unusual integrated an essential audition at the price.

MARANTZ PM-17MKII KI MODIFIED  2004  £1,500
Gloriously offbeat do-it-all design with a truly warm, smooth and three dimensional sound. Think of this as a latter-day Audiolab 8000a - with a good deal more colour and finesse - and you’ll have its measure. Lowish power output at the price, but fine real world driving ability.

UNISON RESEARCH S6 2002 £1,625
Tremendously musical and lithe sound with real finesse and subtlety too. Very slightly upper mid forward encourages careful partnering with ancillaries (Revolver R45s are ideal), but overall fantastic value for money.

ORELLE SA100EVO  2003  £1,200
Fine build, exquisite design and a wonderfully lucid sound make this an essential audition at the price.

NAD C352  2004  £300
Classic NAD mix of smooth, punchy sound with plenty of watts and sensitive, real-world facilities; a great introduction to real hi-fi.

NAIM NAIT SI  2004  £825
The most musically engaging integrated at or near the price; real sophistication in sound allied to grip and power aplenty. Iconic styling and great build complete a very pretty picture.

NAIM NAC282/NAP200  2004 £4,000
Wonderfully taut bass, lightening midband and incisive treble makes for an enthralling listen; this cracking combination looks great and is superb value too.

PRIMA LUNA PROLOGUE I  2004 £800
Unlike almost every other budget tube integrated we’ve tested, it’s nicely built, decently powerful and engineered well enough to let the benefits of tubes shine out loud; sweet, open, liquid. Cracking value.

STELLO S200  2004  £1,495
Oodles of smooth, clean power with plenty of pace and pleasing subtlety too. Factor in exquisitely build and a low price and this is a true audiophile bargain.

AV AMPLIFIERS

DEMON AVR-2803  2003  £650
Superb mid-price 7.1 channel extravaganza with nearly all the decoding power you’ll ever need. Powerful, open and clean sound (at the price) makes it capable with music, and superb on movies. Fine ergonomics and great build makes this receiver hard to beat as an all-rounder.

NAIM AV2/NAP 150/NAPV 175  2002  £4,190
Brilliant audiophile multichannel pre-power amplifier combo; not as good with music as a two-channel Naim set-up at the same price, obviously, but surprisingly close. Elegant control layout plus a strong, clean and brilliantly engaging sound make this a serious crossover product. Ultimately lacks power compared to similarly priced Arcam gear, but is more musically involving.

PIONEER VSA-AX51  2004  £1,000
The ability to hook up to Pioneer’s DV-868i via i.LINK (see Five-Wires) means that this multichannel AV amplifier can do all the digital conversion onboard makes the a very special product, which when used with the aforementioned DVD spinner sounds better even than the sum of its parts.

NAIM NAPISO  2002  £795
Driven by a decent source and a NAC112, this gives highly enjoyable results - providing you like the Naim sound! Taut, fast and feisty despite its relative lack of power.

MUSICAL FIDELITY

X-CANS V3  2003  £249
Mr Michaelson’s best headphone amplifier to date, with an extremely open and explicitly detailed sound plus serious bass wallop and the ability to drive any phones to very high levels. Errs towards brightness with some headphones, so match carefully and use smooth cables.

PREAMPLIFIERS

CREAK OBH-12  2000  £220
Brilliant value budget passive, giving little away in sonic terms to far more expensive designs. Connectivity and build aren’t great, but what do you expect at this price?

MF AUDIO PASSIVE PRE2003 £1500
Novel and effective pre with switchable gain via a transformer, and balanced operation. Open and incisive sound, yet makes most active rivals sound edgy by comparison.

NAIM NAC112  2002  £660
Affordable admission ticket to the Salisbury high end experience. Detailed and dynamic, if tonally rather lacklustre.

LINN LK140  2000  £800
Dry and greying sound, but decently dynamic and musically engaging all the same. A worthy worker in a budget Linn system.

MUSICAL FIDELITY

A388 CR  2003  £2400
Superb transistor behemoth, worth partnering with any high end CD player or preamp. Oodles of grunt served up with poise and purpose.

MARANTZ SM-17  2001  £700
Useful budget power amp with plenty of clean transistor power. Not the most transparent, but sweet and clean all the same. Fine build completes a great value package.

MUSICAL FIDELITY X-150  2004  £800
Brilliant shoebox-sized powerhouse is sweet and mellow despite being obviously a Class A machine, but makes up for it with sheer brio.

HEADPHONE AMPLIFIERS

SUGDEN HEADMASTER  2003  £600
Unusual combined preamplifier and headphone amplifier, this boasts a surprisingly smooth and open sound which suffers only when compared to preamps at twice the price.

MUSICAL FIDELITY X-CANS V3  2003  £249
Mr. Michaelson’s best headphone amplifier to date, with an extremely open and explicitly detailed sound plus serious bass wallop and the ability to drive any phones to very high levels. Errs towards brightness with some headphones, so match carefully and use smooth cables.

PREAMPLIFIERS

CREAK OBH-12  2000  £220
Brilliant value budget passive, giving little away in sonic terms to far more expensive designs. Connectivity and build aren’t great, but what do you expect at this price?

MF AUDIO PASSIVE PRE2003 £1500
Novel and effective pre with switchable gain via a transformer, and balanced operation. Open and incisive sound, yet makes most active rivals sound edgy by comparison.

NAIM NAC112  2002  £660
Affordable admission ticket to the Salisbury high end experience. Detailed and dynamic, if tonally rather lacklustre.

LINN LK140  2000  £800
Dry and greying sound, but decently dynamic and musically engaging all the same. A worthy worker in a budget Linn system.

MUSICAL FIDELITY A388 CR  2003  £2400
Superb transistor behemoth, worth partnering with any high end CD player or preamp. Oodles of grunt served up with poise and purpose.

MARANTZ SM-17  2001  £700
Useful budget power amp with plenty of clean transistor power. Not the most transparent, but sweet and clean all the same. Fine build completes a great value package.

MUSICAL FIDELITY X-150  2004  £800
Brilliant shoebox-sized powerhouse is sweet and mellow despite being obviously a Class A machine, but makes up for it with sheer brio.

HEADPHONE AMPLIFIERS

SUGDEN HEADMASTER  2003  £600
Unusual combined preamplifier and headphone amplifier, this boasts a surprisingly smooth and open sound which suffers only when compared to preamps at twice the price.
LOUDSPEAKERS

B&W CDM1 NT 2002 £750
Fine clarity and imaging allied to pleasing warmth and great rhythmic cohesion make these standmounters an essential audition.

CASTLE CONWAY 3 2003 £930
Superbly smooth and crisp performers, with a big hearted musical sound. Ultimately coloured though, with a slow, plummy bass.

CYRUS CLS70 2001 £800
Charismatic performer with a fast, tight and open midband, but lacks cohesion and scale...

KEF Q1 2003 £750
Highly polished and articulate standmounters at the price, but demand good ancillaries for best results.

KLIPSCH HERESY II 1997 £1100
An outstanding high sensitivity loudspeaker with midrange and treble horns coupled with infinite baffle 12" bass driver. Effortless, fast and accurate.

LINN NINKA 2001 £995
Major on rhythms and dynamics, making them an involving listen. Reasonably refined, too - but tonally disappointing.

EPOS ELS-3 2003 £200
Plenty of brash and a decent degree of refinement makes this budget baby a fine value contender.

MISSION 782SE 2003 £900
Bright and tight design capable of brilliant speed and grip, at the expense of warmth. Demands high quality, high powered ancillaries.

MONITOR AUDIO B4 2003 £350
An unusually smooth and lucid performer at the price, and its 3-way design means it drives rooms well. Fine engineering, but build and finish so-so.

REVERE REVERE R45 2003 £899
Wonderfully easy to drive standmounters that are a dreamboat for tube amplifiers, and great for party-minded transistor users too. Great attack transients, fluid and musical bass and midband and cough treble make them fine all-rounders.

W'DALE DIAMOND B.112001 £120
Still the best baby budget standmounters around. Tight and gritty thanks to Kevlar drivers, but invariably limited in the frequency extremes.

MORDAUNT SHORT 9142002 £300
Warm, detailed and articulate performer; but a touch loose in the bass and veiled up top. Fine partner for budget valve amps.

NAIM ALLAE 2002 £1990
Taut and gritty like few others, this speaker majors on transient speed. Surprisingly smooth for a Naim box, with nicely etched treble. As always, tonally dry.

QUAD ESL-988 2001 £3400
Wonderfully neutral and self-effacing with sublime imaging and projection. Treble lacks extension, bass lacks weight - although the pricier 989 answers the latter resoundingly.

PERIGEE FK-1L 2002 £5000
Charismatic Aussie ribbon design with deliciously open mid and treble, allied to fine bass weight. The right room and ancillaries essential. Engaging, musical and powerful sound. Superb.

TDX S-80 2002 £90
Ingenious NXT multimedia sub/sat system has a wonderfully even and open sound - like baby electrodynamics.

MARTIN LOGAN CLARITY 2003 £2895
Supremely transparent and open with brilliant depth perspective and image projection. The midband is up there with the very best at any price, while the bass and treble integrate well but don't especially shine. Dynamically limited, with middling bass punch, but that's not the point - that deliciously fluid and incisive midband wins great respect.

TANNNOY EYRIE DCI 2003 £699
The combination of dual concentric treble/midband drivers plus super tweeters make for a very spacious and expansive sounding loudspeaker, albeit one that's a little bright and loose in the bass. An excellent mid-price design well worth auditioning.

TOWNSEND MAXIMUM 2003 £800
Another brilliant niche product from Max, these ribbon aspirated super tweeters add space and atmosphere to any high end loudspeaker, and more surprisingly perhaps make things more fluid and musical too. Superb affordable esoterica.

HEADPHONES

JECKLIN FLOAT TWO 1998 £99
Wonderful panel-like sound from these esoteric-looking headclamps.

SENNHEISER MX-500 1999 £19
Our unqualified recommendation for those seeking a serious sounding pair of in-ear phones. Smooth, detailed and musical.

SENNHEISER PX-100 2002 £29
Cracking pair of lightweight open back cans ideal for personas, but good enough for real hi-fi use. Superb build allied to a smooth and engaging performance make them the spiritual successor to the HD400s.

SENNHEISER HD-650 2004 £250
Not the best headphone in the world, but a superb all round reference to the same. Very crisp, detailed and even sound allied to superbly build and fine comfort makes all most people will ever want. Cable upgrade yields great results.
To hear the fine detail you sometimes need a little **muscle**
STANDARDS

SENNHEISER HD-590 1998 £199
The company's best real-world cans to date. Open and smooth with plenty of detail. Brightly lit midband makes them an ideal partner for a valve headphone amp.

TUNERS

ARCAM T6i 2002 £250
This sleek looking and refined sounding FM/AM tuner isn't the last word in musical involvement, but is fine value, nonetheless.

ARCAM DT8i 2003 £650
A fine radio, hampered only by its seriously compromised DAB medium. Probably the best DAB tuner ever, but one for Digital Radio enthusiasts only...

CAMBRIDGE AUDIO DAB300 2003 £150
Fine ergonomics allied to great ease of use and respectable DAB sound makes this superb value.

PRIMARE T21 2002 £600
Seriously accomplished design with mature sonics, great styling and fine build.

PURE DIGITAL DRX-70ES 2003 £249
Great with Digital Radio, but thin on the bass. It's a top hybrid, nonetheless...

INTERCONNECTS

WIREWORLD OASIS 5 2003 £99/M
Excellent mid-price design with a very neutral, silky and self-effacing sound. Superb value for money.

CHORD CO. CHAMELEON 2£90/M
One of our favourites, these are musical performers with a smooth yet open sound.

VDH ULTIMATE THE FIRST £260/0.6M
Carbon interconnects that help you forget the electronics and concentrate on the music. Miraculous transparency. Tight and tuneful bass mixed with air and space results in a cracking cable for the money.

DNM RESON £40/M
Neutral and transparent - a steal!

TCI CONSTRICCTOR £3A-D BLOCK 2003 £120
Top quality 'affordable' mains outlet block, with fine build and good sonics. Well worth the extra over standard high street specials, which sound coarse and two-dimensional by comparison.

NORDOST BLUE HEAVEN £150/M
Some of the fastest and most transparent cable around.

SYSTEMS

DENON D-M11 2003 £250
Excellent CD receiver package with surprising sonics and a brilliant tuner as a bonus, although its amplifier section doesn't quite match the Onkyo. Optional speakers are mediocre.

ONKYO CS-210 2003 £300
Superb value thanks to excellent sound, great built and ease of use, but the bundled 'speakers rather let the side down.

LINN CLASSIK 2002 £995
The best one-box stereo system money can buy; superbly musical sound beats equivalent priced separates. £2,500 Classik Movie Di deserves the same accolade, but adds DVD video playback and surround sound.

DENON TU-246L Mk II 1998 £130
If you want the best FM sound at the lowest possible price, then this ancient tuner remains peerless after all these years. There are better analogue designs around, but are either near-impossible to find or are now long-deleted.

DENON D-M11 2003 £250

MYRYAD MT 100 1999 £600
One of hi-fi's nice surprises, this is a beautifully designed and built bit of kit with a deliciously sweet and svelte sound which really does justify its high price.

NAD $400 2003 £600
Highly accomplished specialist high end analogue tuner with a deliciously open and lucid sound, but it can't quite match the Myryad all the same.

NORDOST BLUE HEAVEN £150/M

PIONEER NS-DV990 2003 £199.95
Whiz-bang technology fest with DVD universal playback, discrete display and NXT flat panel speakers. Superb for the spare room or study — truly intelligent and elegant design — but don't expect it to match the sonics of AV separates.

For all your advertising requirements please call 020 7372 6018

or email:
advertising@hi-fiworld.co.uk
COMPONENT SUPPLIERS

Audio Synthesis
PO Box 50 Nottingham, NG9 1DX.
Tel: 0115 224 338 Fax: 0115 229 7013.
Email: salesinfo@audiosynthesis.co.uk.
Website: www.audiosynthesys.co.uk

VISHAY BULK FOIL RESISTORS - unquestionably the world's finest resistor for audio applications. Thousands of YSR 0.3W 300V ppm 1% values in stock at the lowest possible prices eg. values up to 20K at £3.50+vat.

High Purity Silvewire - Telidon insulated >99.99% purity, 0.6mm and 1.0mm diameter. Ideal for internal wiring, interconnects or speaker cables.

Audio-Links
7 Fairmont Crescent, Scunthorpe,
North Lincolnshire, DN16 1EL
Tel: 01724 870432
Fax: 01724 875340
Email: audiolinks@ntworld.com

Extensive stock of specialist audiophile components for valve and solid state enthusiasts. Supplier of the largest range of high-end audio volume controls in Europe. 30 page catalogue - Free via e-mail or £3.00 posted.

Noteworthy Audio Limited,
36 Buckingham Street, Aylesbury,
Buckinghamshire, HP20 1NH
Tel: 01296 422224
Email: info@noteworthyaudio.co.uk
Website: www.noteworthyaudio.co.uk

Suppliers of a selected range of audiophile valve kits and components. Including the Stoeckit range of valve amplifiers, Audio Note one times oversampling Dac Kit 1.1 and Lowther driver units. Plus a range of components and accessories from Eichmann, Furutech, Wonder Solder, Caig and many more. For a list of the extensive range of manufactured products and the special offers we stock please see our website or call for details. We are open from 9.30 to 5.30 Tuesday to Saturday, with demonstration stock of our kits available - please call in advance to book an audition.

White Noise
11 Station Road, Bearsden,
Glasgow, G61 4AW
Tel: 0141 942 2460
Fax: 0141 587 7377
Email: david.white38@ntlworld.com
Website: www.wnaudio.com

Supplier of the widest range of standard and audiophile kits for solid state preamplifiers, power amplifiers, headphone amplifiers, power supplies, MM/MC phono stages, active crossovers, balanced I/O modules, and stepped attenuators; more kits in the pipeline. All kits use the highest quality, glass fibre, solder masked, silkscreened, PCBs. We also supply a wide range of active (esp. Japanese transistors and Excon mosfets) and passive components, gold plated connectors, and silver plated wires. Write, phone or email for a free catalogue. Mail order only.

Audiocom Int Ltd
Unit 14 Pier Road, Pembroke Dock,
Pembrokeshire, SA72 6TR
Tel: 01646 685601 Fax: 01646 685602
Website: www.audiocominternational.com
E-mail: info@audiocominternational.com

Extensive range of audio passives and active components including DACT, Black Gate, Sanyo, Elma & Vishay. We are the manufacturer and sole distributor for Super-clock 3 master clock. Invisus discrete regulators. Visit our online store for pricing and information. Secure online ordering available.

LOUDSPEAKER KIT SUPPLIERS

IPL Acoustics,
Chelsea Villa, Torrs Park,
Ilfracombe, North Devon, EX34 8AY
Tel/Fax: 01271 867499
Please visit us on the web for full catalogue of products:
www.iplacoustics.co.uk
IPL supply a range of 7 high quality transmission line speaker kits and a full range of Hi Fi and AV speaker kits, including 2 active subwoofers. Drive units are available from Audax, Seas, Morel, Legend (Ribbon Tweeters), and IPL custom built metal coned drivers. IPL also supply quality capacitors, inductors and cabinet accessories, including Silver Plated PTFE insulated cables.

WILMSLOW AUDIO
50 Main Street, Broughton
Ashley, Leicester, LE9 6RD
Tel: 01455 286603
Fax: 01455 286605
Email: sales@wilmslowaudio.com
Website: www.wilmslowaudio.com
Contact us for a copy of our FREE Full Colour Catalogue or visit our Website with secure online ordering.

The UK's largest supplier of loudspeaker kits, drive units and components. We also have a range of subwoofer kits and amplifier modules available. Official UK distributor for ATC, Morel, Peerless, Scan-speak, Seas, Vifa and Volute. Beware of imitations, we only stock drive units made by the genuine manufacturers. We offer a full repair and upgrade service on most makes of loudspeakers.

VALVE AND OUTPUT TRANSFORMER SUPPLIERS

Westwood Valves
3 Ryall Close, Bricket Wood,
St. Albans, Herts, AL2 3TS
Tel: 01923 893270 Fax: 01923 679207
Specialist in new old stock and current production valves. Sole UK distributor of the Harma Diamond range selected for their superior performance. Huge range held, stocklists of Mullard, GE, Philips, National, Brimar, Sylvania, Telefunken, RCA, MOV and many more. All valves are new boxed and guaranteed. For free price list and specialist advice call or fax Derek Rocco, Westwood Valves.

Chelmer Valve Company Ltd
The Stables, Baddow Park,
Great Baddow, Chelmsford, Essex,
CM2 7SY
Tel: 01245 241300
Fax: 01245 241309.
Email: sales@chelmervalve.com
Website: www.chelmervalve.com
Premium range of audio valves, tested/selected for low noise, hum, microphony; power valves burnt-in. Huge stock of valves/tubes of all type, audio valves (inc. NOS types), industrial etc. Also large stocks of semiconductor. Many obsolescent valves.

Billington Export Ltd
1E Gillmans Trading Estate
Billinghurst, West Sussex RH14 9EZ
Visitors by appointment only
Fax: 01403 783519
Email: sales@bel-tubes.co.uk
Website: www.bel-tubes.co.uk
Guaranteed new/old stock CRT's for audio & industrial use Vintage types including Mullard, GEC, Telefunken & RCA. Large stocks of Chinese & Tesla. Major stockists of the Billington Gold brand. Free catalogue on request. Attractive prices on large orders. Minimum orders £100.00

MODIFICATION SERVICES

Audiocom Int Ltd
Unit 14 Pier Road, Pembroke Dock,
Pembrokeshire, SA72 6TR
Tel: 01646 685601 Fax: 01646 685602
Website: www.audiocominternational.com
E-mail: info@audiocominternational.com
Upgrade services available for all CD, SACD & DVD players. With our latest products we are able to advance CD playback way beyond what 'stock' players are capable of resolving. Our extensive knowledge base and upgrade techniques make us world leaders in digital upgrades. Various upgrade solutions are available to suit your budget and desired performance.

REPAIRS & RESTORATION

The UK's Leading Service & Restoration Specialists. Repairs/Restorations to Modern/Classic/Vintage valve hi-fi, musical and cinema amplifiers, control units etc. We will even build that kit for you or design something special. Please visit our Website at: www.audiolabs.co.uk for complete details of our comprehensive services. Alternatively, contact us at:-

Audio Laboratories (Leeds)
3 Kildare Terrace Industrial Estate Leeds LS12 1DB UK
Tel/Fax +44 (0)113 2440378

Arkless Electronics.
Tel: 01670 829891
E-mail: arkless.electronics@btinternet.com
Web Site: www.arkless.co.uk
Specialist in repairs, restoration and modifications to all amplifiers, valve or solid state, ancient and modern. Design service for companies and hobbyists. Amps, preamps, phonostages, active crossovers, psu's etc custom built to order. Kits built/debugged. Please enquire for any other services. Ex design engineer for well known hi-fi companies.
**Letter of the Month**

**THE BIG SOUND**

I am the youngest person I know who is into real hi-fi. So I have no one to turn to for advice. I am an avid reader of your magazine, as it seems to review a broad range of products, both new and old. I am having difficulty in finding the correct speakers for my ears. I have been through various amplifier/CD combinations and have now found one that works, or at least I think I have. I cannot be totally sure until I have rested on a pair of speakers that I am happy with.

Speakers I have owned since day one include, Mission 700, 701, 702e, 704, 704as, 753 Freedom, 754 FreedomSs, 782se, B&W DM605 S2 and some old DM model (227). Cerwin Vega AT100, Al 1000. Kef Q1, Ref 203. I have also listened to PMC FB1, Quad II L and Mission 780. Now I have never been totally satisfied with any of them. I know that one would have to look forever to find a speaker that is totally perfect in every way, but surely there is a speaker that has been made with the detail, vocal expression and out-of-the-box sound from the Kef Reference 203, but with the slam and dynamics of something better than the Cerwin Vega AT100s, with all round speed and a treble that isn’t harsh?

At present, I have a Musical Fidelity integrated amplifier with Cambridge Audio Azure 640 CD player and the 754 Freedom Ss mentioned earlier, along with an ISO 18 cleoline mains filter, VDH interconnects and Chord Carnival Silver Plus ‘speaker cable. The speakers seem closed in and small sounding up top, with next to no upper bass, but lots of lower bass that seems too gutsy for the driver that lurks beneath. Making for a none too pleasant sound that seems separated along the audio band. I’m thinking of trying the legendary NS 1000M, but am I just missing in the wind?

Sorry to go on, I like the idea of a big fast driver with top draw, fast mid and treble units, but if the sound is too harsh I will be back in the same position. I do know I want a big, maybe older speaker, but which one? There aren’t enough classic hi-fi reviews! Please help a young person that hopes to keep the hi-fi torch alight. I also want to dabble with vinyl. What turntable/arm/cartridge combo would show me the benefits of the source, on a budget of say £400? Sorry that I have gone on for too long, but I really would appreciate a helping hand.

G Daykin

You won’t get what you are looking for, because some of the properties you crave, like ‘speed’, are partly a contrivance that exclude smoothness. Today’s metal cone loudspeakers are a fine example. Seemingly clean, clear and fast you’ll notice with many of them that after a while they subtly impose this character upon everything. Warm, fruity woodwinds move into the horn section for example! This homogenising of tonal colour is a warning sign that something is amiss, being just one example of false enhancement.

Unfortunately, the corollary to this is that a truly balanced loudspeaker will sound distinctly unimpressive by way of contrast. The best example in my books is the Quad electrostatic, preferably in tuned up (by One Thing) original.
Well, I'm not sure I'd agree with Noel about the NS1000Ms. sensitivity being appalling; Yamaha quoted 91dB/1W, and listening bears this out (I can get decent listening levels with 20W WAD K5881), although he's certainly right about it being a tricky speaker to drive, as it needs something that's been designed properly or it will tell you about it in no uncertain terms. I also think he's right about speed being a chimera; obviously some speakers sit on transients and sound like they don't want to get out of bed of a morning, but most apparently fast sounding speakers are simply riddled with distortion (i.e. Snell Type Js, etc). I think what you're looking for is a good old fashioned unconstructed 'big sound', one that's fast yet neutral, powerful, physical and visceral without straying too close to the pain barrier. Of course, Yamaha's NS1000M fulfils this perfectly, but you'll have to spend a lot of time looking for the right pair (and if you haven't heard a pair working properly, you're buying blind -- rather like old Jaguars, they're 'feel' extremely impressive even if they're well past their best) and also a lot of money getting your ancillaries up to the task of driving them. So why not consider Monitor Audio's GR60 (£2,295)? This, as I've said, is something akin to a modern NS1000M. It has a truly big and powerful sound, but is much more forgiving on front ends and amplifiers. It's not ultimately as good as the Yamaha, but in most workaday situations sounds as good or better because it's easier to match and get to give of its best. I love this speaker, and am surprised it's not more hyped! You'd find the MA GR60 would sound half decent with your magic but modest Cambridge Audio 640CD and the Musical Fidelity integrated (not sure which one it is you have, but it's bound to be pretty capable). Match the GR60s to Chord Odyssey 4 cable, clean all your contacts and use a very dark, neutral interconnect between the CD and amp (van den Hul's The First, for example) and you'd get great results. You could then upgrade your CD player to something like Quad's CDP-2 (£1,000) when funds allow. Alternatively, if the GR60s are out of your range, next best would be Mission's e82 (£1,640), which is a deeply impressive, fast and physical speaker that is again surprisingly overlooked. In our review a few months back, reviewer Dominic Todd was a little over-critical in my view, but I think it's a star. Finally, as NK points out, if you're seriously tweaky then a pair of Quad ESL-57s rebuilt by One Thing Audio (£1,000) plus a REL Strata S subwoofer as and when you can afford it is pretty much peerless for speed: although you won't be pinned to the back of the your room by the Sound Pressure Levels... DP.

AH SO!

Thanks for your most interesting all-Japanese issue. My memory was prodded by the Sony TTS-8000 turntable. Back in the early 1980s, we had a pair of these in one of the studios at University Radio Warwick.

New HFW campaign -- set Denon's DP-1300M free from captivity in its native Japan!
They were only used for occasional production purposes and for pre-recording a couple of programmes a week; we still had rim-drive Gates machines, complete with a gear-lever on the front panel, in the main on-air studio. I’ve no idea where we got them from, although I have a vague memory of our extremely resourceful chief engineer Stephen Collier, who went on to work for Solid State Logic, striking some very advantageous deals on ex-demo gear at equipment shows.

We can’t have paid much for them, as we existed on a subsidy from the Students’ Union. Still more of a mystery is where they ended up; when I returned for a nostalgic visit a few years later, they’d vanished. Any chance of you getting your hands on that tasty-looking Denon DP-1300M turntable for review?

JH

Hi JH — interesting anecdote; so many of the high end Japanese decks ended up doing precisely this sort of thing; broadcast studio work.

It’s where Technics sold most of its SP10s. As for the Denon DP-1300M, I’d love to review one. I’ve been lobbying Denon’s savvy UK PR supremo heavily Robert Follis on this very subject, but despite being a real vinyl dude in the seventies (he had a Michell Reference Hydraulic Transcription — ‘we are not worthy!’), he went digital in the eighties and hasn’t looked back (or should that be forward!) since. So, any readers wanting a review of the aforesaid delicious looking Denon direct drive, on sale new in Japan for less than £1,000 now as we speak!), Send an e-mail to editorial@hi-fiworld.co.uk with ‘come on Rob, get your finger out’ in the subject line and I’ll forward them... Well, stranger things have happened! DP

IF THE CAP FITS

Please could you help me with the following? I am the proud owner of the Cambridge A75 and C75, which was designed by Stan Curtis back in the eighties. I am really fond of the way it looks and the sound it makes. However, being afflicted by the upgrade bug I wonder how much more the sound would be enjoyed if the twenty year old electrolytic capacitors were replaced with modern audio grade equivalents?

Changing the capacitors on the PCB is straightforward as audio grade caps will fit. The problem is that the original large can 6800uF power supply caps have reduced in size, to the extent that Nichicon, Elna and Black Gate equivalents are only available in snap-in form; snap-in varieties would not fit into the vibration limiting PSU capacitor housing! This leads me to the following questions:

- Would there be a detrimental effect if the 6800uF PSU smoothing capacitors were swapped with either 10,000uF or 15,000uF capacitors? If there was a detrimental effect, could other capacitor values be changed to re-balance the amplifier? If so, please could you let me know what these should be changed to?
- Build a PCB for the snap-in variety of 6800uF audio grade caps?
- Try standard 6800uF caps?
- Do all of the above and leave it to my ears to decide!

I am hoping someone out there can save me from my trials and expense using their greater experience. I do have the circuit diagrams if that helps.

Darren Haynes

In theory at least, installing higher value power supply reservoir capacitors reduces hum and noise, and provides greater energy reserves for dealing with low frequency ‘transients’ (short term events). It will increase the current surge at switch on though, which may blow an internal fuse or possibly the rectifiers. It will also pulse the mains harder during use. None of this is too much to worry about if you’re handy with a soldering iron, as the fuse could be made slow-blow or uprated, whilst modern rectifiers absorb tremendous surge currents. So if the old ones blow a new set may well improve things. You really should have some idea of what’s going on in a circuit before doing this sort of thing though; I generally measure surge currents to see what area I am working in. All the same, many or most experimenters ‘suck it and see’ and this is usually successful enough. Just remember you are working with lethal voltages.

Will sound quality improve? It is difficult to say with any accuracy as there are many other limiting factors. Electrolytics do degrade and modern audio types should offer an appreciable improvement. A common trick though is to strap a low value ‘dry’ capacitor, such as an audio grade polypropylene of 0.1uF, across the electrolytic to improve its high frequency behaviour.

I would suggest you try a small but useful value increase to 10,000uF or so, and use parallel caps, and see how it all sounds. You will need to use your ears to decide, but people usually report quite big changes when experimenting like this.

NK

BIT BY BIT

I read your excellent August issue about Japanese classic high end models. I look forward to seeing more reviews in the same vein. What impressed me the most, was your review about the Yamaha late 1980s CD player. It is an interesting coincidence that I own two models of the same era, that I presume you would find interesting to include in your future reviews. These are Denon’s DAP-5500 DAC/pre and DCD-3560 CD player. The pre uses classic 16 bit, x4 DIA conversion technology, while the CD uses a 20 bit, x8 technology named “Lambda” by the company. Both have bulletproof built quality and were Denon’s top line models. The CD weighs an awesome 17kg, while the 5500 has separate chassis for the DAC and preamplifier parts.

Do you think that late multi-bit converters (like the “Lambda” circuit), provide a significant improvement over the classic 16 bit? The latter have sonic
qualities you described in your Yamaha's test, which I found also myself when I'm listening to the pre (and using the CD only as a transport). Would you prefer instead using the multi-bit D/A converters of the CD, especially via balanced XLR sockets?

Nick Frydas

My experience of Denon’s Lambda technology, which reduced low level quantisation distortion, was it usefully smoothed the sound of CD to give a relatively mellow delivery. By this I don’t mean warm and boring, so much as silky clean at all levels. I rather liked the sound, reminding me of the strengths of HDCD and SACD. However, not everyone sees things like this, the more strident delivery of early 16bit D/As being one example where some listeners preferred what they perceived to be a better focused and timed delivery. I think this comes down to personal taste, although measurement suggests smoothness is a result of lower distortion and is technically more correct.

On the matter of using balanced outputs, here is another upcoming minefield! The internal circuitry of most electronic equipment is unbalanced. To offer a balanced output manufacturers must fit extra circuitry, usually an unbalanced-to-balanced line driver. This is quite a common device nowadays, as working with balanced signals becomes increasingly popular, so there are many super low noise and distortion audio chips appearing. Traditionally balanced lines have been used to minimise noise and hum, especially in studios. A balanced signal line also does not carry ground currents, definitely a good thing as hum loops are banished. All the same, adding circuitry isn’t the best idea unless it’s particularly necessary. If an unbalanced preamp connects to unbalanced power amp through balancing ICs, for example, then two extra ICs will be inserted into the signal line. If the line is long, say more than one metre, there may be benefit. If it is short, all that extra circuitry may well be a drawback, as it has no value. Manufacturers tend to be a bit oblique about this subject as a result. As a general rule, using balanced lines is likely to offer most benefit where signal lines are long. The only glaringly obvious place to use a balanced connection is with pickup cartridges, as they are naturally balanced sources. But of course this is the one place where balancing has not been used. Doh! NK

It’s an interesting philosophical question, that of multibit vs. Bitstream: I have owned two Sony high end machines, the CDP-557ES and the CDP-X77ES. The former was a 1988 model year machine using Philips TDA1541 multibit chips, the latter a 1989 MY machine using the then new Bitstream technology, although the transports were virtually the same, as were the analogue output stages. The two couldn’t sound more different, and by all criteria, the former was brighter and harsher (and ‘harsh’ is the right word to use here), the latter more subtle and smooth by a country mile. I suspect the latter measured far better too, but I couldn’t help going back to the former – especially when using ‘inky black’ interconnects (LFD Spirolink 3). Even through my rather ‘upfront’ Yamaha NS1000Ms, the multibit – properly matched – delivered. I suspect we’re going to have flourish of late eighties CD nostalgia, as people realise that Bitstream was a change not an improvement (subjectively at least) and – as usual – the real reason for the switch was that Bitstream chips were… yes, you’ve guessed it… cheaper! DP

POWER HOUSE

I am in the lucky position of rewiring my new (two hundred year old) house. I would like to put in a dedicated mains feed for hi-fi but do not know where to go to get further information as to exactly how to do this. Please can you help me find out which cable to use, how to connect to the distribution board etc and how to get the most out of this opportunity.

Richard Williams

You should wire your home in accordance with the latest regulations, contained in BS7671, especially with regard to the new colours for installation cable: brown for live, blue for neutral and green/yellow for earth. If you don’t then you may well not be insured against damage from any problems that could arise and resale value may be affected. It’s best to get a certificated electrician and a safety certificate upon completion of the rewiring, as it adds to the value of your home and improves future saleability. I doubt whether you could use esoteric mains cabling of
For low cost it's usual to use 2.5mm installation cable in the home. Use a heavier gauge for a better sound. RS stock up to 6mm in the new colours. It should give tighter bass. Courtesy of RS for your own long term benefit.

Components.

any sort here and still persuade an electrician to certify the final installation, and I'm not sure it would be wise in any case. I would suggest you simply ensure quality cable is used. My main listening room has its own ring main - with twin cables per run between sockets, to halve the resistance. That was installed back in the 1980s, where I simply worked with an experienced electrician. A simpler solution is to use normal 6242YH twin and earth installation cable with the highest current rating available, which in my RS catalogue is 6 square mm rated at 41A. This is more than three times as expensive than usual 2.5mm and it won't be as easy to work with. You may want to experiment with different types of Residual Current Circuit breakers if you have them. It's wisest to do the best you can within current regulations.

If your supply from the street is poor then all this may well be a waste of time, but if not it could ensure you have a "stiff" supply that varies little in response to a variable load. If you can, try to ensure your house has a good, modern, well cabled connection to the mains supply. I recently had the good fortune to be told my local link was going to be improved, at which point I dived in with offers to pay for the best cable available and managed to get some very bemused installers to agree to use top dollar cable, for which I paid a mere £80 premium. Every inch needs to be top quality and this is only good practice. So keep your feet on the ground, get the best, but stay within guidelines for your own long term benefit.

MISSING CLASSICS

Can I suggest some products that should be on your "classics" list? If the Audio Technica AT 1120 rates a mention, then surely you must acknowledge the Mayware Formula 4 tonearm? This was that late 1970s rarity, a low mass tonearm that really worked and still sounds respectable - and, to boot, a quirk-free unipivot. The Mayware managed to be both low mass and reasonably rigid. Its damping and variable effective mass feature allowed it to work well with both high compliance moving magnets and low compliance moving coils. I know that the bloke that produced them was a bit difficult to deal with, but credit where it is due: a Mayware Mk III in good condition is still a match for many modern arms (I have tested it against a Rega RB250) and a MkIV or MkV is even better. My Mk V managed to sound fine with high compliance cartridges such as the old Goldring G900SE and Mayware's rather good high output moving coil (MC7VIII) but it also sounds absolutely splendid with my latest acquisition: a Denon DL-103. The best thing about Maywares is that, as jeweled unipivots, there is almost nothing to go wrong with them, so they make an excellent secondhand buy.

Then there's the Rogers HG88 valve amplifier. It is not one of the most fashionable but it is a remarkably good 'real world' device, as it is an integrated and has a good quality phone input. In 1985 I rescued one from a friend's snow covered rubbish heap (literally), dried it out and had a defect on one channel repaired. I then listened with astonishment as it completely outclassed the sound from the latest Best Buy 'budget superamp'. I had just bought. It is quiet, untemperamental and produces a strong, clean, stable sound that gets better the longer you listen to it. Somehow its 8 watts per channel manage to do as much useful work as the 30 watts per channel of the modern amplifier it replaced. I know that 'classic' valve gear is supposed to be quirky, difficult and strictly for enthusiasts but I think the Rogers deserves a vote for being none of these.

Denon DL103 MC – thousands of years ago, audiophiles were listening to this sort of thing...
things - and still sounding good. (It's a better amp than the Cadet that you list.)

The Walker Cj6 is a different sort of classic: a design which appeared just when CD was knocking the bottom out of the turntable market, so it never sold on the scale it deserved. However it was potentially a very important design, because in it designer Colin Walker produced what is in many ways the definitive low-cost, high quality turntable - an effective, reliable, fuss-free suspended subchassis turntable for around £100. He did this by stripping away all the non essential elements that clutter most turntables and then taking a radical but practical approach to the design of what was left: he (a) reduced the plinth to a non-resonant drum the same diameter as an LP record, (b) made the plinth, subchassis and platter entirely out of non-resonant wood and composite materials and (c) fitted a good quality motor and bearing and a stable three-point suspension.

With a little tweaking, the sound is good and with an outboard power supply it is excellent. Place it amidst any collection of old or new turntables and the classic simplicity and simple 'rightness' of the design of the Cj6 sets it apart from the crowd. Study the details and whereas its competitors have awkward or ineffective suspensions, resonant armboards, clangy metal platters and subchassis etc. etc., the Cj6 has none of these things - there is nothing superfluous and everything is right. I firmly believe that if it had appeared a few years earlier, or if CD had appeared a few years later, the Cj6 would have taken a huge slice of the turntable market and would have been regarded as an obvious 'shoo-in' for your list of 'classic' hi fi designs.

I notice you don't have a section for classic pickups but these are very interesting. I have just bought a Denon DL-103 and once I got it run in and loaded 'just right' (150 ohms) I have been absolutely astonished by the sound - in the Mayware arm and Walker turntable it is amazingly good, far better than CD, better than any other pickup I have owned previously and without any apparent vices. What I am trying now to understand is what on earth all the progress in hi-fi has been about when Denon were making something this good in 1963!

As for other 'classic' pickups, no doubt there will be many views but it could be an interesting section, as the Denon has made me question many of my assumptions about technical progress over the last 40 years or so and led me to wonder how some of the famous names of the past would really compare on a level playing field. It could make an interesting feature.

I notice that there is a US website which is still selling some old ADC 10E cartridges (legendary 3/4g tracking devices from the late 1960s) and it would be fascinating to see these rate against some others of the time (Shure V15s or M75EDs) and also the Denon DL-103, the inevitable Deccas and a couple of present day 'contenders'. (FYI, I once had a loan of a Shure M3D which I mounted in a Rega RB250 and sounded very good.) My guess is that some of the top names of the past would sound old hat but others could cause a few surprises. (We already know about the Ortofon SPU.)

Alasdair Beal

Having measured and used a lot of this kit in the past I couldn't quite share your enthusiasm for it, but I appreciate that many of the items work well enough to give real musical enjoyment, often in a less challenging manner than many modern products, which have developed a stridency that's wearing at times, and not just to me it seems from many of our letters. However, old pickup cartridges - and especially the Shure M3D - do not raise a shred of interest in Keywood towers I'm afraid to say. That thing was a truck without any method of steering. Cartridges and arms have in particular moved ahead significantly in sound quality, leaving the items you mention far, far behind in my view.

Alasdair NK

Hi Alasdair - I'd echo NK's sentiments entirely, and would add that the Denon DL-103 is a right old stinker. I simply don't know why people keep raving about this. I bought one brand new in Japan and spent months trying to get the best (it) out of it, but went back to my plain old Y20,000 (£80) Audio Technica AT-33E which totally trounced it in every respect... I found it hard, mechanical and unsubtle (to put it mildly); not surprising considering it was designed in 1963... DP

Try a Castle Howard, if you want to hear the smooth, uncoloured sound of carbon fibre.

My new CD-based system, therefore, had to sound at least as good as, if not better than my vinyl set-up, which considering its age, you would think would have been a fairly easy task to do. Well, the answer is partly 'yes' and partly 'no'. It's definitely 'yes' to the Audio Analogue Maestro CD, Quad 991909 amplification, a REL Storm S, and the (mainly) Russ Andrews interconnects, speaker cables, mains cables and filtering, all of which together deliver an impressive, and certainly as close as I'm going to get with my budget, to vinyl sound.

What about the new speakers that I've not mentioned? Well, that's

Hi

Andrews interconnects, speaker cables, etc. etc., that I've not mentioned? Well, that's together deliver an impressive, and certainly as close as I'm going to get with my budget, to vinyl sound.

So what about the new speakers that I've not mentioned? Well, that's
A75 Series 2 amplifier and Acoustic Wilson Benesch Arc also has an easy give a livelier sound that delivers to spend huge sums of money too and PMC DB1 speakers, though bought system owes a lot to reading Hi-Fi some time in the future. My current electronics, would like to rebuild it at the A75 and, with my hobby being first real hi-fi kit comprising a Thorens migrating up the quality chain, with my up over the past thirty years or so, I have gradually built my system TOP TIP? "Each unto their own..." DP

"Each unto their own..." DP

TOP TIP?
I have gradually built my system up over the past thirty years or so, migrating up the quality chain, with my first real hi-fi kit comprising a Thorens TD160 with Ortofon VM520, a Rogers A75 Series 2 amplifier and Acoustic Research AR6 loudspeakers. I still have the A75 and, with my hobby being electronics, would like to rebuild it at some time in the future. My current system owes a lot to reading Hi-Fi World, comprising a Rega P25 with a Goldring 1042, a Unison Research Unico amp, Cambridge C640 Azure CD and PMC DB1 speakers, though bought well before they reached the pages of most hi-fi magazines.

I think I probably need a new stylus, which gives me the opportunity to consider a cartridge upgrade. However, I noted in your August letters section a suggestion that a GyroDec? Teccoarm would be well matched by a 1042, so should I really be looking at putting anything better in my P25 at £600, or just get a new stylus? I have some of your cartridge reviews from the past and, looking at a price range of between £400-500, was considering a DV20X, what do you think, would it make a difference? The Ortofon Rondo range seems to get some good comments, and the Bronze is similarly priced to the Dynavector, might this suit my system? I like a well balanced sound, neither bright nor boomy, which I think I get from the 1042, so wouldn't want to compromise this by mismatching to the system. Finally, I really like the magazine, one of the few not to be dominated by Ay, but this by mismatching to the system.

Given that most of your readers will be situated in the UK or at least in the larger metropoles around the globe I thought you might be interested in the two vastly different sides of being an audiophile in Australia and specifically in Adelaide South Australia. Despite the negative part of what follows, Adelaide is a great place to live, work and to raise a family and as an expatriate Yorkshireman I can think of no other place I would rather live. But it does have its drawbacks. Read on.

On the positive side there is quite a healthy and mature audio industry in this country and it saddens me greatly that so few of our audio products actually make it to the overseas markets. Loudspeakers in particular are thick on the ground and there are many, many manufacturers who have products on offer that to my ears can rival anything from anywhere in the price/performance stakes, and some can rival the absolute best. Come on you UK and other overseas based distributors - check out this stuff and give your product range a facelift! Do a web search and see what’s on offer - you might be surprised.

On the negative side I would like to relate to you some of the trials
and tribulations that I have recently suffered in my attempt to select and actually buy a new turntable. By way of background, whenever I am in the market for a new piece of gear my routine goes something like this:

1. Source and read as many comparative reviews as I can from magazines and the Internet.
2. Peruse the local dealers and try to audition each of the possible contenders in the store.
3. Borrow one or two of the shortlisted items and audition them in my home on my system.
4. Make the purchase (and try to negotiate a discount if I can). Sounds fine in theory right? Wrong! Especially if the component that you are looking for is an upmarket turntable in Adelaide in the year 2005.

It might still work for a home theatre purchase, but old fashioned stereo equipment (and relatively upmarket gear at that?) Forget it. Step one is the easy bit, apart from the fact that by the time the mags hit the shelves over here they are usually a couple of months out of date (too bad if we Aussie audiophiles want to enter any of your competitions, guys).

But it stops there.

My shortlist on this occasion included turntables from Origin Live, Michell and Clearaudio. None of these turntables can be auditioned anywhere in my hometown because none of the so called hi-fi stores here actually keep them in stock! Yes they can supply the gear to order and we can actually find a product purely on the strength of its reviews and its looks but in this case I have to go out on a limb and do that because I have simply no choice. Anyway after a great deal of soul searching I parted with a deposit on the promise that my shiny new turntable would be here inside three weeks. (That's probably about twenty days too long at this particular stage of the process of course, as you would all understand but so be it).

Well that is now over eight weeks ago and I still do not have my turntable. Why? Partly due to the tenuous supply process the turntables are ordered from the manufacturer and effectively supplied to order because no stocks are maintained anywhere in the supply chain. Partly because it just takes a while for the order to actually get to the manufacturer, and even longer for the finished product to be freighted out here (via Sydney of course). Partly its due to the manufacturer apparently being busy and their production process working at capacity (which I would reluctantly agree is a good thing). And finally, to add further insult to (already significant psychological) injury the Australian Customs Department in their infinite wisdom decided to impound the shipment for three weeks...

Indeed, I rather suspect that some X-ray machine thought that my turntable was a bomb, or perhaps picked up the fact that the tonearm contained a suspicious looking material. (Too bad for them its only acoustic dampening material and not the equivalent weight of narcotics). Well all is well that ends well I suppose. My turntable is due in Adelaide tomorrow and with any luck I will be listening to it in 24 hours time that's if the customs people haven't snapped the arm in half to check out the inner contents, if there's nothing missing, nothing broken and that I can follow the instructions and actually put it together.

Not to mention successfully navigate my way through the tenuous alignment process without snapping off my cantilever.

So to all of you lucky English chaps who can enjoy the luxury of any number of well stocked hi-fi outlets within a fifty mile radius, teeming with amicable dealers more than happy to lend you product and with stocks either on the shelf or (at most) a day or so away spare a thought for us long suffering antipodean audiophiles this summer, when you're not ruining the demolition of English cricket again that is...

Andrew Hoyle
Adelaide
South Australia

Hi Andrew — yes, you're right, the UK is heaven for serious prospective two-channel and/or vinyl buyers. Why, in my very street, sandwiched between the newsagents and the butchers, are umpteen high end vinyl specialists, all desperate to lend me the latest tasty bits of kit (and set it up for me) for an indefinite period, for free. There's always real coffee, freshly served, and thousands of knowledgeable salesmen who know their cartridges from their cantilevers. Oh, to be in England in the summer... Then there's the warm beer and cricket, old maids cycling to country fairs, home made jam from the Women's Institute, and local toffs tooting past in their XKs as local yokels doff their caps to them in respect and appreciation.

Oh, and by the way, it no longer rains here either. Ah — life in merrye England! DP

'SMOKEIN' I would appreciate your advice upon an appropriate pair of speakers to partner the superb Morantz CD63
Quad 989 – properly set up, they’re brilliant with jazz

KI DP modified by Marantz (following the article in your June 2004 edition), which I play through a Prima Luna Prologue One, using Chord Odyssey 2 cables. I listen mainly to jazz, leavened with Little Feat/Ned Young/Joni Mitchell now and then. I am tempted by Living Voice’s Avatar, but I’m also considering Martin Logan Claritas or Focal JMlab Micro Utopia Bes (or even Divas). My budget is around £5,000. I would also be interested in your views on the best interconnects for the Marantz/Prologues.

Seth Caine

Hi Seth — sitting here listening to the KI DP via a World Audio K5881 into Quad ESL-989s, I’d have to say the Quads. The Martin Logans are excellent, but smaller scale in their presentation and have the perennial driver matching problem (electrostatic panel plus moving coil bass driver equals two speakers in one). The 988s (or 989s at £6,000) if you can possibly afford them) are superbly integrated and sing with valves. The Quads really fly with Chord Company Signature cable, although the first thing you’d have to buy is a pair of Townshend Maximum Supertweeters, which address the only merely ‘excellent’ aspect of their sound – the treble. The Maximums push the 988s top end from about 19kHz to 50kHz, and although the KI DP rolls off about 2kHz, there’s a lot of extra air on the upper mid and treble all happening with my old Mimik as a transport – what would it be like with a decent transport?

So the Tri-Visto was purchased and we set about finding a transport to suit. My local dealer offered me an old Kenwood DPX9010 to try and boy did it sound good, it wasn’t quite as upfront as the Mimik but somehow just seemed more relaxed and natural sounding and had me thinking I was home and dry! Then it packed up, inspection by the dealer revealed that it was the laser/transport mechanism that had conked out, and the chances of getting the bits to repair it were pretty much zero. So here I am with a superb DAC that is crying out for a transport to let it work its magic. The Mimik is holding the fort at the moment and has seen off a couple of transports that I’ve tried, namely a TEAC VRDS-I0 (too soft and woolly in the bass) and an Audiolab 8000CDM (totally sterile and uninvolving) I really don’t know where to turn next.

The second hand market has an abundance of options but obviously it is a minefield. I am currently pondering on an XTC CDT1 SE, Meridian options, Wadia 3200, Arcam Delta 170, Theta stuff and have also seen another Kenwood DPX-9010, but worry about reliability. The rest of my system is NAD pre, 2xNAD powers bridged, happily driving Linn Kabers. Musical taste is varied but mainly based around light rock/pop, Floyd, Zeppelin, and even Celine Dion when the wife insists!

Dave Mayer

Well, here’s a great chance to get on my soapbox again; Hi-Fi World loves classic kit, but we never, ever, ever, recommend spending silly sums (did anyone mention eBay?) on stuff that is no longer supported by the manufacturer with parts supply. If you do, then you’re buying yourself an esoteric ornament; and if you’re
into ornaments, why not buy the wife something she likes, as she's probably got better taste than you...

Anyway — and so to transports; TEAC VRDS transports are, by-and-large still supported — as the company takes its digital spinning machines very seriously and doesn't buy a job lot of old CD-ROMs from Philips like most people. So I'd suggest a VRDS-T 1 (1995ish); you're right to say it's a bit woolly (that's what we found too), but the magical sing with the MF DAC, which is, in my opinion, a star. DP

AND ANOTHER THING!

Dear Mr. Price,

It used to be easy to purchase the magazine in Lisbon. On the other hand, its purchase became the most direct way to satisfy my addiction, on a monthly basis. All of a sudden, to find Hi-Fi World in Lisbon became a run from newsstand to newsstand until it turned "impossible to be found".

Hi — thanks for subscribing. This letter gives me the chance to do a little 'housekeeping', so please skip the next two paragraphs if you're not endlessly fascinated by the politics of hi-fi magazine publishing:

This mag has, according to our distributors, pretty much doubled its circulation in the past two years. The result is that, although most newsagents carry us, their stock tends to sell out within the first few days and — for some reason unknown to us — they often don't restock until the next issue, preferring to carry some mobile phone or 'customise your Vauxhall Nova' type title instead... This has meant that getting the mag can be tricky, unless you reserve a copy from your newsagent or subscribe. So, to all the readers who constantly phone me up and ask if we've gone bankrupt because they can't find HFW on the shelves, there's your answer! To those not into the idea of 'buying a subscription', I will give you this pledge; if you take out a sub, I promise not to turn the mag into a 'surround sound and vision' publication that celebrates only the brand new and ignores everything else for the duration of your sub! There will be more of the same winning formula, not 'arf!

Secondly, re: World Classics/Standards: there will be a major update soon, but as it's me who's doing it, and I'm spending most of my time working on weird and wonderful system features, research into classic kit and tweaking classic kit old and new, there simply aren't enough hours in the day to do everything as quickly as I'd wish. I hope you understand; the main point is that we're an independent magazine, not published by the same company that does mobile phone and lads mags, and we don't have umpteen blokes twiddling their thumbs in front of computers who I can 'assign' to do stuff. Hopefully you all understand. Our independence is one of our key strengths as a title, but also explains some occasional weaknesses too. Your enthusiasm for the KEF 107/2 is noted; anyone else agree? I can't say they float my boat, though! DP

KEF 107/2 with its coupled cavity bass loading. The midrange and treble units sit in individual chambers.

addition of a Trichord Clock 4 mod soon turns it into something that's hard to beat at any price. Otherwise, Quad's new CDP-2, complete with its 'fuzzy logic' servo, is very accomplished. Another brilliant CD spinner is Linn's Karik 3, with a stunning transport section. All will should have subscribed long ago. For no identifiable reason I only did it today, I'll be anxiously waiting my first issue as a result of a yearly subscription. The reason I'm writing you this mail is a totally different one and it has to do with the omission of the KEF reference 107/2 speakers in the Hi-Fi World's list of classic gear. Is there any particular reason not to mention them? I've always thought they are a must for any audiophile. Back in Portugal the Reference 107/2 are regarded as the twentieth century state of the art, in what loudspeakers is concerned, and it is obviously my opinion too.

Mário Kopke Tilo

Mário Kopke Tilo

Hi — thanks for subscribing. This letter gives me the chance to do a little 'housekeeping', so please skip the next two paragraphs if you're not endlessly fascinated by the politics of hi-fi magazine publishing:

This mag has, according to our distributors, pretty much doubled its circulation in the past two years. The result is that, although most newsagents carry us, their stock tends to sell out within the first few days and — for some reason unknown to us — they often don't restock until the next issue, preferring to carry some mobile phone or 'customise your Vauxhall Nova' type title instead... This has meant that getting the mag can be tricky, unless you reserve a copy from your newsagent or subscribe. So, to all the readers who constantly phone me up and ask if we've gone bankrupt because they can't find HFW on the shelves, there's your answer! To those not into the idea of 'buying a subscription', I will give you this pledge; if you take out a sub, I promise not to turn the mag into a 'surround sound and vision' publication that celebrates only the brand new and ignores everything else for the duration of your sub! There will be more of the same winning formula, not 'arf!

Secondly, re: World Classics/Standards: there will be a major update soon, but as it's me who's doing it, and I'm spending most of my time working on weird and wonderful system features, research into classic kit and tweaking classic kit old and new, there simply aren't enough hours in the day to do everything as quickly as I'd wish. I hope you understand; the main point is that we're an independent magazine, not published by the same company that does mobile phone and lads mags, and we don't have umpteen blokes twiddling their thumbs in front of computers who I can 'assign' to do stuff. Hope you all understand. Our independence is one of our key strengths as a title, but also explains some occasional weaknesses too. Your enthusiasm for the KEF 107/2 is noted; anyone else agree? I can't say they float my boat, though! DP

KEF 107/2 with its coupled cavity bass loading. The midrange and treble units sit in individual chambers.
Ex-demo and second hand items

Digital

Accuphase DP77V CD/SACD player x-demo
Audio Synthesis DAX Decade 22bit Balanced S/H
dCS Verdi Transport latest software S/H
Mark Levinson No360s DAC S/H
Marantz C3D3 S/H
Meridian 206 CD Player S/H
Meridian G08 CD S/H
Primare V10 CD/DVD Player x-demo
Sagden CD21 Graphite S/H
Sony CDCXE597 SACD Player S/H
TAG McLaren CDT20R Transport S/H
Theta Generation V Balanced S/H
Theta Pro Basic II DAC with Oscom/Balanced S/H

Anologue

Dynavector XV1a 200hrs S/H
Audio Research PH3 Phono Stage x-demo
EAT The Head MC Transformer S/H
Heed Quasar 2 box MC/MM Phono stage new
Kuzma Stabi/Stogi S Turntable New & Boxed
Krell KPE Reference+ PSU S/H
Heed Pure Reference S/M Phono stage new
Magnat MD106T 4 months old
Spectral MI-350 15ft Interconnect RCA-RCA x-demo
Spectral MI-330 15ft Interconnect RCA-RCA x-demo
Spectral DMC15 Preamp S/H
Transfigurapic Temper MC 600hrs S/H

Preamps

Audio Analogue Bellini Remote Preamp x-demo
Krell KPC Preamplifier S/H
Mark Levinson No380 Pro Preamplifier S/H
Primare Pre30 Preamplifier x-demo
Spectral DMC30s Reference Preamplifier S/H
Spectral DMC15 Preamplifier S/H
TAG McLaren AV/R30 RS/L7.1 T2 processor S/H

Amplifiers

Audio Analogue Donizetti Mono Power Amplifiers x-demo
Audio Research V700 Re Valved S/H
Cyren 8 Integrated Silver S/H
ECS EA1 Mono Amplifiers S/H
OCM 500 Soloist stereo power amp, awesome S/H
Musical Fidelity A1000 S/H
Krell FPB750mcs Mono Amplifiers S/H
Pathos Logos valve Hybrid S/H
Primare A30.2 Power amplifier x-demo
Red Rose Split integrated x-demo
Rega Malia Power amplifier Black x-demo
Spectral DMA100s Power Amplifier S/H

Speakers

Audio Note A2.2 effient, budget floor stander S/H
Audio Physic Spark 2 American maple x-demo
Audio Physic Yara Monitor Cherry x-demo
Audio Physic Yara Floorstander x-demo
Audio Physic Virgo Maple x-demo
ATC Active 10 SL x-demo
ATC Active SCM50A SL Maple S/H
ATC SCM7 Cherry x-demo

Cables and Accessories

Wavenut DV1000 3 head cassette deck S/H
PS Audio Power plant 300 Multiwave x-demo
Rega radio 3 Silver x-demo
Tice Solo Powerwante Enhancer S/H
Tice Solo AV Power Conditioner S/H
Sony ST D77TES DAB Tuner S/H

Tuners & Tape decks, power supplies

Aiwa F770 3 head cassette deck S/H
Magnum Dynalabs MD106T 4 months old
PS Audio Power plant 300 Multiwave x-demo
Rega radio 3 Silver x-demo
Tice Solo Powerwante Enhancer S/H
Tice Solo AV Power Conditioner S/H
Sony ST D77TES DAB Tuner S/H

Midland Audio X-change are looking for Audio Research, Krell, Mark Levinson, Naim Audio, DCS, Wadia.

e-mail: sales@midlandaudiox-change.co.uk
web: www.midlandaudiox-change.co.uk
Bosendorfer Loudspeakers,
by the company who make, arguably the best pianos in the world, since 1828

HiFi News and Record Review May 2005... The sound is extraordinary in its overall balance. The VC7's are capable of exceptionally fine detail and dimensionality. In terms of the sensible compromises, the sheer musicality and sense of being there, the VC7 is masterpiece. The Bosendorfer VC7 is for me a dream come true.

Best Loudspeaker 2004 - Wallpaper Magazine

See it, hear it, experience it, at
KJ West One
26 New Cavendish Street
London W1 Tel: 0207 486 8262/3

HiFi Choice April 2005
Editors Choice Gold Star

Le Festival Son et Image de Montréal 2004... It was also perfectly obvious that the Bösendorfer loudspeakers had the finest reproduction of piano music that I have ever heard. Seeing the quality of the piano in the same room as the loudspeakers, I was impressed, but not surprised. They obviously knew what they were doing when they built these beauties....

the VC7's performance in the front/rear and left/right dimensions is expansive and three-dimensional. Even subtle details are reproduced in a magnificently rich sound. Flute tones are soft and delicate while cembalo is well defined even in very quiet passages. Even when the music becomes louder, reaching dynamic peaks, the VC7 retains its effortlessness.

Marco Kolks - Horerlebnis

also at the Design Centre, Chelsea Harbour, Chelsea, London

AUDUSA EUPEN
The world's only true Ferrite technology cables - a high quality ferrite is extruded over the conductor strands. Power Cords - GNLM 5/2.5 (CSA 2.5) and GNLM 05/04. From £48 for a 1m power cord terminated with an IEC and MK tough plug. Also available are the CMS Analog, Digital and Video Interconnects with RCA, XLR or BNC connectors.
A must for all digital products - CDP, DAC/Transports, DVD, Sat/Cable receivers, Digital power and pre amp etc. Equally effective on TV's CRT/Plasma/TFT

AUDUSA OOM products include ceramic speaker cable isolators from the USA, MK Tough plugs, IEC's, Wattgate 320L. IEC and USA Plugs with silver plated contacts. Locking banana and RCA connectors with silver plated pins. New in stock are 13 amp fuses with silver plated end caps.

WWW.AUDUSA.COM
T: 020 8241 9826, 020 8264 0249 F:020 8241 0999 E: sales@audusa.com

LAT INTERNATIONAL - USA
Power, Analogue, Tonearm, Digital, Video interconnects and single and biwire speaker cable.
Silverfused wire technology.
NEW FOR 2005
IC 300 Analog and DI-30 Digital Interconnects, AC-2 MKII Power cord, SS800 and SS1000 MKII Speaker cables.
HART ELECTRONIC KITS TRADED FOR OVER 30 YEARS

Hi-Fi Multiroom and home cinema

PLEASE SEE OUR WEBSITE FOR LATEST OFFERS!

THE LISTENING ROOMS LTD
161 OLD BROMPTON ROAD LONDON SW5 0LJ
TEL: 020-7244 7750/59 FAX: 020-7370 0192
www.thelisteningrooms.com
E-mail: trl@btclick.com Mon-Sat 10-6pm
Listen Carefully

Excellent sound at sensible prices can be found.

After much searching I have my first three suppliers. Ayre, Thiel and Esoteric digital. There are others out there no doubt. When I find them, and if the chemistry is right, I'll represent them in my deliberately small specialist showroom in North London.

You'll be surprised I think by the relaxed atmosphere here. That's because I offer just one demonstration slot in the morning, one in the afternoon and occasionally one in the evening. No fuss, no hurry, no interruptions, no other visitors, no parking wardens and no coercion.

You'll benefit from my years of experience and you'll receive my undivided attention.

I offer home demonstrations in London, Kent, Essex, Cambridgeshire, Hertfordshire, and Bedfordshire too, and some uncommonly generous upgrade paths from entry level to the pinnacle. Just telephone me on 020 8447 8485.

With me you can listen to the Ayre AX-7e, K-5xe, K-1xe, P-5xe, V-5xe, V-1xe, CX-7e and C-5xe. Also the Thiel CS1.6, CS2.4 and SS1. Finally, the Esoteric, UX-1, P-01, D-01 mono DAC and G-05s master clock generator.

In summary then - calm and intelligent demonstrations for lovers of all types of music.
**AMPLIFIERS**
- **Audio Note M8** with phono
- **ATC SCA 2 Pre**
- **Naim NAC 92** with **Nap 90/3**
- **Exposure 11 8 12 pre**
- **Mark Levinson 28** with phono stage

**PRE-AMPS**
- **Thiel CS6**
- **Orchid LWO**
- **Spica TC-50**
- **Audio Physics Tempo’s**
- **ATC SCM 2012 Active Loudspeakers**

**SPEAKERS**
- **Mordaunt-Short MS 3.30**
- **Sonus Faber Extremers**

**CD PLAYERS & TRANSPORTS**
- **Accuphase A20 class A amp**
- **Rotel RC-995**
- **Mark Levinson ML 332 Power amp**

**TURNTABLES, CARTRIDGES & TONEARMS**
- **Project RPM9 turntable without cartridge**
- **Dynavector DV-DRT XV1S**
- **Roksan Attessa with ROC DAI dac & PSU**

**CONNECTION CABLES**
- **Hansard 15 Foot Transparent Music Wave Super single mono run.**
- **1 Mtr pair Madrigal CZ Gel bar interconnect**
- **15 Foot Transparent Music Wave Super single mono run.**
- **1 Mtr pair Madrigal CZ Gel bar interconnect**

**STYLIS**
- **My Sonic Eminent**
- **Audio Tekne**
- **Project 69**

**CORDS**
- **Krell Home Theatre Standard processor**
- **PS Audio Power Plant main conditioner**
- **Denon DCD 590**
- **Sony ST-5E570**

**REFERENCE INTERCONNECTS**
- **Real Hi-Fi**
- **Nordost Red Dawn**
- **ISOL-8 Qube**

**VISA & IRELAND DISTRIBUTOR**
- **UK & IRELAND DISTRIBUTOR**
- **Real Hi-Fi**
- **Call Dave on 01775 761880 or order online**

**MUSONIC STYLIS**

How to get the most out of your record player in 3 easy steps:

1. **Buy from Musonic**
2. **Fit your purchase to your player**
3. **Turn up the volume**

After 50 years in the business We know what we're talking about!

Manufacturers and suppliers of Styli, Pickup Cartridges and Audio Accessories.

Musonic (UK) Limited
Unit 13, Wenta Business Centre, Colne Way, Watford, Hertfordshire, WD24 7ND
Email: sales@musonic.co.uk
Tel: 01923 213344
Fax: 01923 213355

For info and to buy online visit:  
www.musonic.co.uk
Are you making the right connections?

Send for Britain’s biggest catalogue of specialist cable and connections.

All available by mail order.

Phone 020-8942 9124 or clip the coupon for your Free copy

www.custom-cable.co.uk

Are you making the right connections?
### Oxford Audio Consultants Ltd.

**Our Superb Service Is The Same Regardless Of Price.**

**Now Demonstrating**

### SALE LIST

<table>
<thead>
<tr>
<th>Product Description</th>
<th>RRP</th>
<th>NOW £</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUDIO RESEARCH D130</td>
<td>2000</td>
<td>765</td>
</tr>
<tr>
<td>AUDIO RESEARCH VS155</td>
<td>2895</td>
<td>1995</td>
</tr>
<tr>
<td>AUDIO RESEARCH CD3 MK11</td>
<td>5190</td>
<td>3495</td>
</tr>
<tr>
<td>AUDIO RESEARCH SP16L</td>
<td>1995</td>
<td>1995</td>
</tr>
<tr>
<td>AUDIO RESEARCH VS110</td>
<td>3995</td>
<td>2795</td>
</tr>
<tr>
<td>AUDIO RESEARCH V70</td>
<td>4000</td>
<td>1995</td>
</tr>
<tr>
<td>AUDIO RESEARCH LS2</td>
<td>2000</td>
<td>595</td>
</tr>
<tr>
<td>ARCAM DV29 DVD</td>
<td>1600</td>
<td>995</td>
</tr>
<tr>
<td>ACOUSTIC ENERGY AE1 BLACK BIWIRE STANDS N/A</td>
<td>495</td>
<td>495</td>
</tr>
<tr>
<td>ACCUPHASE DP565V</td>
<td>3000</td>
<td>1995</td>
</tr>
<tr>
<td>ACCUPHASE PS500</td>
<td>3600</td>
<td>1995</td>
</tr>
<tr>
<td>ATC C2 SUB</td>
<td>1600</td>
<td>895</td>
</tr>
<tr>
<td>AVI S2000MC REFERENCE CD</td>
<td>1395</td>
<td>395</td>
</tr>
<tr>
<td>BAT VK515E 6 MONTHS OLD</td>
<td>7950</td>
<td>3995</td>
</tr>
<tr>
<td>BOULDER 1012 PREAMP 2X DEM</td>
<td>12950</td>
<td>7955</td>
</tr>
<tr>
<td>BOULDER 1010 PRE EX DEM</td>
<td>9500</td>
<td>6495</td>
</tr>
<tr>
<td>BOULDER 1060</td>
<td>16500</td>
<td>9995</td>
</tr>
<tr>
<td>BRYSTON BP20 PRE</td>
<td>1800</td>
<td>895</td>
</tr>
<tr>
<td>CHORD SIGNATURE SPKR CABLE 8MTR PAIR</td>
<td>1850</td>
<td>950</td>
</tr>
<tr>
<td>CLEARAUDIO CHAMPION LEVEL 2 + UNIFY ARM</td>
<td>3000</td>
<td>1395</td>
</tr>
<tr>
<td>COPLAND CD288 HCD BLACK</td>
<td>2000</td>
<td>795</td>
</tr>
<tr>
<td>COPULARE AMP STAND 19X19 INCH</td>
<td>950</td>
<td>295</td>
</tr>
<tr>
<td>DENNON DVP1600</td>
<td>400</td>
<td>150</td>
</tr>
<tr>
<td>DENNION AVC-ASR BLACK</td>
<td>3000</td>
<td>995</td>
</tr>
<tr>
<td>HITACHI S5PMA50 55 INCH PLASMA 3 MTHS OLD</td>
<td>5500</td>
<td>3495</td>
</tr>
<tr>
<td>HOVLAND HP200 WITH PHONO EX DEM</td>
<td>735</td>
<td>4295</td>
</tr>
<tr>
<td>HOVLAND SAPPHIRE</td>
<td>700</td>
<td>3495</td>
</tr>
<tr>
<td>KRELL KFS20IL</td>
<td>12000</td>
<td>2795</td>
</tr>
<tr>
<td>KRELL KPS28</td>
<td>7600</td>
<td>3495</td>
</tr>
<tr>
<td>MARTIN LOGAN ASCENT 1 3 MONTHS OLD</td>
<td>4333</td>
<td>2995</td>
</tr>
<tr>
<td>MARANTZ CD7</td>
<td>3500</td>
<td>2405</td>
</tr>
<tr>
<td>MERIDIAN DSP 6000 24/96</td>
<td>11500</td>
<td>5495</td>
</tr>
<tr>
<td>MERIDIAN DSP 5000 24/96 ROSEWOOD MK1</td>
<td>4500</td>
<td>1995</td>
</tr>
<tr>
<td>MERIDIAN M60C BLACK</td>
<td>1000</td>
<td>495</td>
</tr>
<tr>
<td>MICHIEL GYRO SE SILVER</td>
<td>940</td>
<td>550</td>
</tr>
<tr>
<td>MUSICAL FIDELITY NUVISTA CD</td>
<td>3000</td>
<td>1495</td>
</tr>
<tr>
<td>MUSICAL FIDELITY TRIVISTA INTEGRATED AMP</td>
<td>4000</td>
<td>2495</td>
</tr>
<tr>
<td>MUSICAL FIDELITY A3.2 INTEGRATED AMP</td>
<td>970</td>
<td>550</td>
</tr>
<tr>
<td>MUSICAL FIDELITY A3.2 TUNER</td>
<td>699</td>
<td>395</td>
</tr>
<tr>
<td>MUSICAL FIDELITY A3.2 PRE</td>
<td>999</td>
<td>550</td>
</tr>
<tr>
<td>MUSICAL FIDELITY XLP</td>
<td>150</td>
<td>75</td>
</tr>
<tr>
<td>MUSICAL FIDELITY XCAN V2</td>
<td>150</td>
<td>75</td>
</tr>
<tr>
<td>MUSICAL FIDELITY XCAN CD</td>
<td>800</td>
<td>395</td>
</tr>
<tr>
<td>NAIM 500 s/n 179450/177734</td>
<td>12350</td>
<td>6995</td>
</tr>
<tr>
<td>NAIM NBL BEECH s/n 159946</td>
<td>7500</td>
<td>3495</td>
</tr>
<tr>
<td>NAIM 252 s/n 193419</td>
<td>4265</td>
<td>2995</td>
</tr>
<tr>
<td>NAIM 82 s/n 102030</td>
<td>2000</td>
<td>1195</td>
</tr>
<tr>
<td>NAIM SNAPXO 3-5 S/n 187399</td>
<td>829</td>
<td>50</td>
</tr>
<tr>
<td>PATHOS LOGOS 3 MTHS OLD</td>
<td>2700</td>
<td>1795</td>
</tr>
<tr>
<td>PLINIUS SA100 MK11</td>
<td>4000</td>
<td>1795</td>
</tr>
<tr>
<td>PIONEER 757A MULTI REGION CD/DVD/DSAC EX DEM</td>
<td>750</td>
<td>295</td>
</tr>
<tr>
<td>QUAD 12L BIRDSEYE MAPLE LAUER</td>
<td>4999</td>
<td>2999</td>
</tr>
<tr>
<td>QUAD CENTRE BIRDSEYE MAPLE LAUER</td>
<td>399</td>
<td>295</td>
</tr>
<tr>
<td>QUAD 22L BIRDSEYE MAPLE LAUER</td>
<td>899</td>
<td>495</td>
</tr>
<tr>
<td>RED ROSE PASSION INTEGRATED</td>
<td>2400</td>
<td>995</td>
</tr>
<tr>
<td>REL STAMPEDE BLACK 2 MONTHS OLD</td>
<td>550</td>
<td>395</td>
</tr>
<tr>
<td>REGA MAIA 3</td>
<td>549</td>
<td>365</td>
</tr>
<tr>
<td>REGA EXON 3</td>
<td>1195</td>
<td>795</td>
</tr>
<tr>
<td>RICHARD GREY 1200 CUSTOM MAINS DISTRIBUTION</td>
<td>1900</td>
<td>895</td>
</tr>
<tr>
<td>SONY DVP-NS999ES CD/SACD/CD</td>
<td>999</td>
<td>395</td>
</tr>
<tr>
<td>TEAC VRDS 9 CD</td>
<td>700</td>
<td>295</td>
</tr>
<tr>
<td>TANNOY DIMENSION 8</td>
<td>4200</td>
<td>1995</td>
</tr>
<tr>
<td>TARA LABS DECADE 2MTR BALANCED</td>
<td>2300</td>
<td>395</td>
</tr>
<tr>
<td>T AND A TALLIS 5.1 NEW UNUSED</td>
<td>2200</td>
<td>995</td>
</tr>
<tr>
<td>TRANSPARENT MUSIC WAVE PLUS BIWIRE 15FT900</td>
<td>450</td>
<td>395</td>
</tr>
<tr>
<td>WADAI 1900</td>
<td>5000</td>
<td>1995</td>
</tr>
<tr>
<td>ZINGALI OVERTURE 2</td>
<td>2500</td>
<td>1395</td>
</tr>
</tbody>
</table>

### SH - Second Hand XD - EX Demonstration

**0% interest free credit**

### Agencies included:
- Anthony Gallo
- Artcousbc
- Audio Aero
- Audio Analogue
- Audio Research
- Avid
- Beyer
- Blok
- Bose
- Burmester
- Canton
- Chord Company
- Copland
- Crestron
- Dalziel
- Denon
- Dali
- Definitive
- Dynaudio
- Fujitsu
- GM Audio
- Grado
- Harman Kardon
- Heco
- Jadis
- Jamo
- Kenwood
- Kii Audio
- Klipsch
- LAB Audio
- Linn
- Linn Classik
- Living Control
- Loewe
- Lyra
- Marantz
- Martin Logan
- Michell
- Mission
- Musical Fidelity
- NAD
- Naim
- Nordost
- Opera
- Ortofon
- Ortho Audio
- Oxford Audio
- Pass Labs
- Sound Lab.
- Stax
- Synergistic Audio
- Tannoy
- Thiel
- Tonally
- T+A
- Vantage Point
- Vogel
- West Audio
- Wilson
- Yamaha

### Now Demonstrating


### Open Mon-Sun 10.00 to 8.00

**Website:** www.centralaudio.co.uk

**E-mail:** tony@centralaudio.co.uk

**Also Agents for:**
- Advantage
- Balanced audio technologies
- Boulder
- Burmester
- Egleston
- Harman Kardon
- Lumley
- Pass Labs
- Sound lab.
- VTL
...what are you up for?

Quality hi-fi equipment always required for cash. Call us before you trade in. Commission Sales too.

Ou845 6019390 or world@2ndhandhifi.co.uk

visit our website, or call 0845 6019390 to speak to a real person

TUESDAY to saturday 10 to 5-ish

Quality hi-fi equipment always required for cash. Call us before you trade in. Commission Sales too.

Ou845 6019390 or world@2ndhandhifi.co.uk
This is a comprehensive directory of Hi-Fi Dealers throughout the UK and Ireland.
STAFFORDSHIRE

ACOUSTICA 114
Wolverhampton Rd, Stafford ST17 4AH, www.acoustica.co.uk. Tel 01785 258216. All the best in Hi-Fi & Home Cinema from Arcam, ART, Audiolab, Ayre, B&W, Focal, JM Lab, MJ Acoustics, Monitor Audio, Naim Audio, Primare, Rega, REL, Rokel, Spendor, Sugden, Thiel, Wadia, Yamaha Pre Eminent. We offer full demonstration facilities, interest free credit and delivery & install systems throughout Staffordshire & the Midlands. Opening hours are Tuesdays to Friday 10.00 to 5.30, Saturday 10.00 until 5.00.

JAMO, Mirage, Rothwell, Roksan, 4AH. www.acoustica.co.uk. Tel 01785 258216. All the best in Hi-Fi & Home Cinema from Arcam, ART, Audiolab, Ayre, B&W, Focal, JM Lab, MJ Acoustics, Monitor Audio, Naim Audio, Primare, Rega, REL, Rokel, Spendor, Sugden, Thiel, Wadia, Yamaha Pre Eminent. We offer full demonstration facilities, interest free credit and delivery & install systems throughout Staffordshire & the Midlands. Opening hours are Tuesdays to Friday 10.00 to 5.30, Saturday 10.00 until 5.00.

SUFFOLK


SURREY

VIVANTE PRODUCTIONS LTD, Unit 6, Fontigarry Business Park, Reigate Road, Sidlow, Surrey, RH6 8QH
E Mail: sales@vivante.co.uk
On Line: www.sales@vivante.co.uk
Tel: 01293-822186
Fax: 01293-820509
Vinyl, SACD, XRCD, HDCD, HDAD, CD etc. - We do the lot! Check our website to see the thousands of interesting titles we have available. Contact us to receive our free monthly newsletter. Ps: we pride ourselves on friendly, fast service and a world beating Musical selection!

YORKSHIRE (SOUTH)

THE HI-FI STUDIOS
Hi-Fi – Home Cinema – Custom Installation Tel: Doncaster 01302 727274 or 01302 725550. info@thehifistudios.freeserve.co.uk www.thehifistudios.co.uk Musical Fidelity, Electrocompaniet, ProAc, PMC, JM Lab, Ruark, Castle, TEAC, Unison Research, Monitor Audio, Impulse, Primare, Harbeth, NAD, Michell Turntables, Nottingham Analogue Studios, Audio Analogue, Living Voice, Densen, Celestion, KEF, Opera, Trichord Research, Nordost, Stands Unique, Ortofon, Project, Goldring, REL, Denon, TAG McLaren, Rotel, Yamaha, Proceed – plus many more. Viewing & Demonstration by appointment in a unique setting. Home trials and installation. Card facilities and 0% available. Please phone for more information. BADA, CEDIA.

YORKSHIRE (WEST)

AUDIO REPUBLIC, 78 Otley Road, Leeds 0113 2177294, www.audio-republic.co.uk for the very best in quality hifi in West Yorkshire and beyond, representing Naim Audio, Rega, Totem, Sugden, Shahinian, JM Lab, Fittech, TEAC, Nottingham Analogue, Spectral, Living Voice, Hutter Furniture, Accuphase, Quadraphone, Chord Cables, Dynaudio. Choice of shop or home demonstrations, open Tues - Sat 9.30am to 5.30 pm. Please phone for a chat and directions.


WALES

ACTON GATE AUDIO 4 Ruabon Road, Wrexham, North Wales, Tel. 01978 364500, www. acton-gate-audio.co.uk See our main ad under Cheshire.

IRELAND & NORTHERN IRELAND

NAIM SPECIALISTS-AINM-AV, 1, Church Rd, Swords, Dublin. tel +00 353 (0) 1 813 7937. m +00 353 (0) 87 247 0559 Email peter.williams@ainmav.com www.ainmav.com
Naim make the ultimate music systems. Come and listen - hear the music. Two demonstration rooms featuring the Naim range. Complete home cinema / multi-room design and installation service. Individual demonstrations including evenings available by appointment. Pre-loved Naim equipment warmly accepted.

FOR NORTHERN IRELAND

contact our new Naim Dealer Moore’s Hi-Fi Tel: 028 9181 2417

VINYL/RECORD MAIL ORDER

DIVERSE VINYL 10 Charles Street, Newport, NP20 1JU. Tel/Fax: 01633 259661/256261. Email: sales@diverse-music.co.uk
Probably the most varied and impressive selection of new and reissue LPs you’ll find anywhere: international new releases, reissues and audiophile products. Also UK distributor of the Disco Anti Stat LP Cleaning Device. Call for a free catalogue, or visit www.diversevinyl.com

World Radio History
www.bi-fiworld.co.uk

To advertise please call
020 372 6018
specialist hi-fi dealers

London

Oranges & Lemons

020 7924 2040
www.oandlhlti.co.uk
61 Vlebbs Road, Batteries, SW II 6R ,
email: oranges.lemons@virgin.net

Hi-Fi, Home Cinema & Multi-room Specialists

www.oandlhlti.co.uk

Naim Specialists

tom tom audio
OFFICIAL AGENTS FOR THE ENTIRE NAIM AUDIO RANGE
see new website @ www.tomtomaudio.com
st albans 01727 86 86 59
naim

Two Channel Specialists

simaudio moon 47 laboratory avid shahinian lavardin electrofluidics living voice sonneteer border patrol neat acoustics isoblu resolution audio tom evans audio dimfreson lfd audio audio physic slinkylinks

www.oandlhlti.co.uk

Regional

shunyata research

LAID-BACK AUDIO LTD

Viny. Specials

Vivante

Vinyl is back?
Truth is, it never really went away. That's why we have been busy keeping vinyl fiends happily supplied all these years. Call us for our free catalogue and newsletter and find out more about the huge range of top quality titles we have available.

Not only that — we give friendly knowledgeable service and the best possible prices. Look forward to hearing from you.

Front End Problem?
contact
The Cartridge Man
It doesn't have to cost an arm and a leg to get the best - listen to my Koetsu - and Decca - eater.
Also agents for Croft, Hadcock, E.A.R. Michell & Moth.

plus cartridge re-tipping service
020 8688 6565
Website: www.thecartridgeman.com

NEW catalogue out now packed with award winning products

"We defy anyone not to notice the improvement in performance when you switch... to a PowerKord."
What Hi-Fi, May 2004

- exclusive mains leads
- exclusive Hi-Fi equipment
- exclusive speaker cable
- exclusive CD accessories
- exclusive supports

order online at: www.russandrews.com
or call UK Local Rate 0845 345 1550 quote AWORLD

Valves & Tubes

CVC Chelmer Valve Company

Buy CVC. PREMIUM HI - FI valves direct from us. All valves processed for improved performance. We also have stock of MAJOR BRAND types Inc. MULLARD, GEC, DRIMAR, RCA, GE, PHILIPS, etc.

To advertise in this space please call 020 7372 6018 or email: advertising@hi-fworld.co.uk
Yorkshire

Aeon Acoustics
ISO-PLATFORMS & FEET LOUDSPEAKERS
MADE FROM NEWGYRO-PNEUMATIC
AUDIO MATERIAL www.spiralex.com

D.C. Boultons
Loudspeaker Repairs & Manufacture
All types including P.A. Disco, Hi-Fi. Juke Box etc.
Agents for B&G, Celestion, Eminence,
Fane, Precision Devices etc.
From re-foams to complete re-builds, even with
slipped magnets.
Trade and retail supplied.
Custom units our speciality.
Over 35 years experience of loudspeaker design
Unit 12, Damgate Lane Ind. Est. Acle, Norwich,
NR13 3DJ
Tel 01493 750075 Fax 01493 751155

Tel: 01423 500442 Fax: 01423 705200 www.iansbespokefurniture.co.uk
The Old Chapel, 282 Skipton Road, Harrogate, N.Yorks, HG1 5HE

specialist hi-fi dealers

CREEK AUDIO LTD
12 Avebury Court, Mark Road, Hemel Hampstead,
Herts, HP2 7TA.
Tel. 01442 260146
E-mail: info@creekaudio.com
Internet: www.creekaudio.com
Creek Audio manufactures in the UK. Current
products include A50, A50IR and 3305SE inte-
grated amplifiers, CD50 MK2 CD player, and T50
tuner. All products are similarly styled providing
an easy mix and match choice depending on
budget. Our miniature OBH range includes two
phono pre-amplifiers, two headphone amplifiers
and a passive preamplifier.

EPOS ACOUSTICS
2 Avebury Court, Mark Road, Hemel Hampstead,
Herts, HP2 7TA.
Tel. 01442 260146.
Email: info@epos-acoustics.com
Website: www.epos-acoustics.com
Innovative design and superior sound distinguish
EPOS speakers from other brands in similar
price categories. Nine models in total including
a 5.1 surround system. All available in 3 finishes.
Supporting stands and plinths complement the
speakers. In addition to its two channel appeal,
Epos is now equally sought after in the fast
growth home cinema market.

IAN EDWARDS
MAKERS OF FINE HAND MADE FURNITURE
Est. 1970

Meet your maker
A reference guide to Britain’s manufacturers and distributors

FALCON COMPONENTS LTD
Unit 12 Damgate Industrial Estate, Damgate
Lane, ACLE, Norwich, Norfolk, NR13 3DJ
Tel 01493 751100 Fax 01493 751155
E-mail: sales@falcon-acoustics.co.uk
Web: www.falcon-acoustics.co.uk
FOCAL drivers, SOLEN polypropylene

Aeon Acoustics
Newlands, Littletorpe Lane,
Ripon, North Yorkshire. HG4 1UB
SPC@spiralex.com
01765 604288
Smart Audio materials with
extended bass response & clarity

PCT Patents & Design Copyrights pending

GARRARD and LORICRAFT
4 Big Lane, Goose Green, Lambourne, Berks,
RG17 8XQ.
Tel / fax: 01488 72267.
We make the all-new Garrard 501 and 601
turntables and can service/repair the older 301
turntables and can service/repair the older 301

GARRARD and LORICRAFT
4 Big Lane, Goose Green, Lambourne, Berks,
RG17 8XQ.
Tel / fax: 01488 72267.
We make the all-new Garrard 501 and 601
turntables and can service/repair the older 301
and 401 models. We cannot help with the many
other turntables that Garrard made. We are also
manufacturers of the Loricraft Record Cleaning
Machine, as reviewed in the July issue of this
magazine. See our website at
www.garrard501.com for more information.

MONITOR AUDIO LIMITED
24 Brook Road, Rayleigh, Essex SS6 7XL
Tel 01268 740 580, Fax 01268 740 589
email info@monitoraudio.co.uk
website: www.monitoraudio.co.uk
Monitor Audio designs and manufactures British
loudspeakers of the highest quality. Since 1972
Monitor Audio has been developing and perfect-
ing the implementation of metal drivers, innova-
tive crossovers, and exemplary speaker cabinet
construction and finish to further the ideal of
achieving sound which to the original is "as
close as it gets". As we enter the 21st Century,
Monitor Audio leads the way in offering speakers
that suit every pocket and which integrate seam-
lessly with both Hi-Fi and AV systems.

PMC/BRYSTON
PMC & Bryston are Emmy
award winning Loudspeaker & Amplifier manu-
facturers - Used throughout the professional
world as reference. Our clients record for
Deutsche Grammophon, Decca and countless
blockbuster Movies. The identical, award winning
ATL (Advanced Transmission Line) technology is
used in all Hi-Fi designs from the DB1+, TLE1 Sub
through to the Active BB5XBD.

SUGDEN AUDIO PRODUCTS
Designed and manufactured in the UK, each Sugden
product is hand-built by one highly skilled technician. A full
range of pure class A amplifiers are available includ-
ing integrated, stereo power and the incredible
range of pure class A amplifiers are available includ-
ing integrated, stereo power and the incredible
Masterclass balanced monoblocks. Our stunning
Bijou system now comes with a single-ended pure
class A power Amplifier with optional integral
control. The HeadMaster can be used as a control
unit in a high quality audio system and excels with
headphones. Please contact us for product infor-
mation, dealer list and brochures. 01924 404088

Special orders welcome

Elegant Storage Solutions for
Hi-Fi, Books,
LPs, CDs,
DVs

Trade and retail supplied.
Custom units our speciality.
Over 35 years experience of loudspeaker design
Unit 12, Damgate Lane Ind. Est. Acle, Norwich,
NR13 3DJ
Tel 01493 750075 Fax 01493 751155

PMCs, TAYDEN high quality PA loudspeaker
units. Largest specialist Audio-inducer UK
manufacturer. Comprehensive range of DIY speaker
parts, kits and accessories. Sub-bass and elec-
tronic filters. Audio Amateur Publications. Audio
Computer Software. Pro-Audio equipment and
loudspeaker repairs. Enquiries send 47p sae for
full price list or visit our website.

SUGDEN AUDIO PRODUCTS
Designed
and manufactured in the
UK, each Sugden
product is hand-built by
one highly skilled
technician. A full
range of pure class A amplifiers are available includ-
ing integrated, stereo power and the incredible
range of pure class A amplifiers are available includ-
ing integrated, stereo power and the incredible

SUGDEN AUDIO PRODUCTS
Designed
and manufactured in the
UK, each Sugden
product is hand-built by
one highly skilled
technician. A full
range of pure class A amplifiers are available includ-
ing integrated, stereo power and the incredible
}
Highest Quality Hi-Fi offered at unrepeatable clearance prices while stocks last:-

- TA-DA 9000ES AV Amplifier Black finish was £2599 clearance £1199
- SCB-XA 9000 CD player Black / Gold finish was £2399 clearance £1199
- SCB-XA 3000 CD player Black finish was £799 clearance £499

A.N.Audio
34 Huntingdon Street, St. Neots
Cambs. PE19 1BB phone: 01480 472071
e-mail: sales@anaudio.co.uk

The most important and expensive components of a valve amplifier are valves and transformers. £200 or £500 for a pair of huge "push pull" output transformers produces good bass + lots of "inter leaved" windings for better high frequency and "stability". Huge £150 mains transformers gives a less "processed" sound. Selected "matched" set of valves cost £50 or £160. If we could achieve the same quality of sound with £10 volume control, £10 wires, £10 capacitor, we could have saved a lot of money ! ! !

Money back guarantee (less £30 UK or £100 overseas) that you prefer:-

- £850 or £1,000 or £1,250 or £1,450 "KT88 Triode Connection" 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

- £850 "KT88 Triode Connection" + high quality £350 "3 way" speakers to "ultra linear" valve amplifiers + £600 "2 way" and "2.5 way" speakers

- £700 EL34 valve amplifiers (40 watts + 40 watts) to most transistor amplifiers and transistor / valve hybrid amplifiers costing £1,000 to £2,000

- £500 EL34 valve amplifiers (40 watts + 40 watts) to most £700 amplifiers.

Telephone 01634 268662 anytime or 01634 373410 for Mr Andrew Everard's review in Gramophone Magazine and Summary of 21 testimonials from satisfied customers. www.affordablevalvecompany.co.uk

Buy direct & save £££ Shop prices are expensive because of rent, rates, wages Free UK delivery Subsidised £50 UPS delivery to overseas countries. 4 years of proven reliability. 2 years guarantee.
TAG MCLAREN CD transport CD720R, cost £1250, 3 years old, £600. M.S.B. Link DAC III 24/96 upsampling power base, cost £770, 2 years use, £250. Leema SPLX12 subwoofer, cost £1100, 18 months old, £600. Transparent 10' bi-wire, cost £650, £300. Tel: 07958 492 243 (Nov)

WANTED: QUADROPOD stands for the ESL 63's. These are the stands that Quad produced themselves for the 63's. Will pay way over the market rate for mint condition ones. Please Email zijafferia@yahoo.co.uk or call on 01972 044 254 (Dec)

CR DEVELOPMENTS Amphion valve monoblocks Class A 6C33C 12AX7 12AU7 12WPC gold chrome and glass, spare boxes, boxed, superb, £845 each. Delivered. Tel: 01202 481 386 (Dorset) (Nov)

MONARCHY SM-70 Class A Zero feedback Mosfet amplifier. 2x12 watts, light maple. Just serviced. Mint. 1 Mullard valve, boxed, manual. £850.00. Tel: 01905 756 057 (Sussex) (Nov)

SONUS FABER Electa Amator MkI plus Ironwood stands £1300, T+A V10 integrated amp £1800. Advantage S-100 integrated amplifier £800. REL Stampede Subwoofer £300. NHT speakers £6 monitors £400, NHT A1 amplifiers 250w monoblocks £400. Tel: 020 8531 5979 (Dec)

ARGAR FMJ CD23 CD player, A22 amp, P25 power amp, B&W CDM9NT speakers, DNM Reson cable bi-wired 4 x 8 metres. Sennheiser HD580 headphones. Run-in 500 hours. £3000 ono. Tel: 01324 622 059 or mobile 07970 330 903 (Nov)

AUDIONOTE TT3 250w monoblocks £1300. DNW Reca £145. Spendor amplifiers. rare, fantastic. £325. Tel: 01275 727 476 (Nov)

CHORD SIGNATURE loudspeaker cable. Two 2m pairs, £230/pair. Russ Andrews mapley mains block/3 Hi-Current PowerKord (Wattgate 350/HSIEC) £85. Hi-Current PowerKords with Wattgate 350 - 3" £60. Two 4" £70 each. Tel: 01752 773 369 (Nov)

AUDIO RESEARCH VSI 55 integrated amplifier £1400. Naim Nait Si amplifier, brand new unopened box £570. Tel: 0771 421 655 (Nov)

VALVE AMPS for sale. 2 Williamson design 15 watt amps. Just serviced. Mint. 1 Mullard design Type 510. Mint. Serious offers only. Tel: 020 8743 2727 (Nov)

AUDIO INNOVATIONS 500 integrated valve amplifier. 2 x 25 watt. Beautiful liquid sound, stylish, understated design. Recently serviced, new valves. (June). Good condition, boxed £450 (£995). Tel: John 01253 886 609 (Lancs) (Nov)

AUDIO PHYSIC Luna subwoofer. the Luna powered subwoofer connects to speakers, power amp, or pre-amp. very fast, accurate, deep bass 10hz - 2khz , 180 watts. light maple. has unique room-gain feature, frequency roll-off, volume, boxed, manual. £850.00. Tel: Michael 020 8550 4223. (London/Esses) (Nov)

YAMAHA NS-1000M, excellent, AR SP-8 Target R-1 stands. Quad ESL-57, black, excellent + stands. Leak Stereo 20, Trechord new Dino NC/PSU, Thorens TD-125, SME 3009, Techno arm, new, boxed, Teac T-1. Tel: 0117 955 6555 or 07979 514 450 (Nov)

UNISON RESEARCH Smart 845 monoblocks £1750, Graaf WFB1 pre-amplifier £750, Nottingham Analogue Mentor, ET2 air bearing tonearm, Lyra Helikon £1500. PMC FB1 loudspeakers £750. Tel: Jon 01923 219 711 evenings, 07736 480 263 daytime (Nov)

AUDIO TECHNICA AT- OC9MLII cartridge. Brand new, unopened, £200. Linn Intek amplifier, good condition, £85. Tel: 07833 700 205 (Lincs) (Nov)

FOR SALE:Whest Audio DAP10 £450. Perpetual Technologies Monolith PSU for P1-A and P3- A Enhancer and Converter £200. Tel: 01642 559 078 (Stockton)

AUDION SILVER Knights 300B monoblocks. Gold plated case-work. Working and in excellent condition. Welcome to audition at my home. £950. Tel: 01262 670 188 (Yorkshire) (Dec)

TRANSCRIPTORS SATURN turntable, Michell rewired. Tonearm v.g.c. £150. Linn Basik tonearm, unused, boxed £30. Quad FM4, serviced by Quad, £200. Quad 34 and Quad 405 II, v.g.c., £300. Tel: 01905 756 057 (Worcester) (Nov)

QUAD IIL LOUDSPEAKER maple finish, near mint condition. £250 ono. Tel: Brendan 01262 424 908 or 07855 759 071 (Nov)

STANDS UNICHE Hi-Fi制定ium stand 10mm glass. Natural ash wood. Size 645 x 420 x 450 H. Cost new approx £300. For sale (as new) £150. Tel: 01462 711 108 (Nov)
**STOWSOUNDS**
**01449 675060**

Spacesaving clearance on most products
- call for other products

- Atrocama BDS 25 inch stands
- Fuss subwoofer and satellites
- Tripod rack - 2 shelf
- Tara Prism interconnect 1m
- DNM mains lead 1.25m
- DNM phono interconnect 1m
- DNM bullet phono interconnect 1m
- Grado SR 60

Exposure 2010 cd
- £395
Exposure 2010 integrated
- £395
Exposure 2010 power
- £350
Phillips CDR870 cd recorder
- £50
OED Discoverer
- £10
OED Onex 45 1m interconnect
- £20
Sonic Link Blue Nickel 0.5m interconnect
- £30
Linn Kon 4 maple
- £275
Creek A50i
- £175
Sonic Link Control 1.0m interconnect
- £45
Epos EL33
- £125
Sonic Link Message 1.0m interconnect
- £20
Music Books - call for list
CDs - call for list or wants

For details call 01449 675060, or e-mail stowsounds@aol.com

**10 charles st newport south wales np20 1ju 01633 259661/256261 sales@diversevinyl.com**

**RECOMMENDED NEW RELEASES**

<table>
<thead>
<tr>
<th>Artist</th>
<th>Title</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elbow</td>
<td>Leaders Of The Free World</td>
<td>£14.90</td>
</tr>
<tr>
<td>Eric Clapton</td>
<td>Back Home</td>
<td>ETBC</td>
</tr>
<tr>
<td>Esper</td>
<td>Esper</td>
<td>£11.90</td>
</tr>
<tr>
<td>Franz Ferdinand</td>
<td>You Could Have It So Much Better</td>
<td>ETBC</td>
</tr>
<tr>
<td>Fruitbats</td>
<td>Spelled In Bones</td>
<td>£11.90</td>
</tr>
<tr>
<td>Ian Brown</td>
<td>The Greatest (Hits)</td>
<td>£15.90</td>
</tr>
<tr>
<td>Iron &amp; Wine/Calen</td>
<td>In The Reins</td>
<td>£12.90</td>
</tr>
<tr>
<td>John Parish</td>
<td>Once Upon A Little Time</td>
<td>£13.90</td>
</tr>
<tr>
<td>KanYe West</td>
<td>Late Registration</td>
<td>£16.90</td>
</tr>
<tr>
<td>Mylo</td>
<td>Destroy Rock &amp; Roll</td>
<td>£19.90</td>
</tr>
<tr>
<td>Queen</td>
<td>Return Of The Champions (Live 3 LP)</td>
<td>£36.90</td>
</tr>
<tr>
<td>Richard Hawley</td>
<td>Coles Corner</td>
<td>£15.90</td>
</tr>
<tr>
<td>Richard Thompson</td>
<td>Front Parlour Ballads (Diverse Rec)</td>
<td>£17.50</td>
</tr>
</tbody>
</table>

**DISCO ANTI STAT LP CLEANER**

Probably the most economical LP cleaning device on the market Only £43.95 Call for details

Call for a catalogue of over 3500 brand new LPs, or visit www.diversevinyl.com

**TURBOCHARGING YOUR REGA ARM**

“Nothing less than total dynamite”

If you are the proud owner of any Rega tonearm, you are now in the enviable position to transform its performance into the league of great speed and impact, and the sound stage is huge.

Rewiring is also £70 further increasing the performance.

Some arms costing over £1000!! High performance rewiring with one of our modifications at £75 will enable your Rega to perform at a level exceeding that of super arms with our modifications. The OL structural modification awarded 5 star rating by Common Ground Magazine.

If you are the proud owner of any Rega tonearm, you are now in the enviable position to transform its performance into the league of great speed and impact, and the sound stage is huge.

Rewiring is also £70 further increasing the performance.

Some arms costing over £1000!! High performance rewiring with one of our modifications at £75 will enable your Rega to perform at a level exceeding that of super arms with our modifications. The OL structural modification awarded 5 star rating by Common Ground Magazine.

If you do not have an arm we can supply the OL1 arm (manufactured by Rega) £124

Arm modifications normally returned within 1 - 3 days

**ORIGIN LIVE**

Tel/Fax: +44 02380 578877

E-mail: info@originlive.com

www.originlive.com
NAIM ARIVA speakers in cherry finish. Twelve months old, mint condition, original packaging. Buyer collects (East Kent) £700. Tel: 01227 764 000 ext. 3292 (mon-wed), Email: sjoy100@hotmail.co.uk (Nov)

LINN LP 12 Sondek Motor Unit, Linn Ekos Tonearm, Linn Arkiv Boron Cartridge, Linn Trampolin Baseboard; Linn Lingo LP 12 PSU: £3500. Linn Linton MC/Preamplifier £600: Tel: 01462 711 108 (Nov)

KEF DRIVE units. Two B139’s: £90; two B110’s: £50; one T27 £18: Tel: 01455 612 995 after 6.30pm. Buyer collects, Leicester area. (Nov)

AUDIO INNOVATIONS P2 phono stage, moving coil model, boxed, manuals, mint, £350. Sound Design 150w OTL valve monoblock power amps, £750. Klipsch HG 4.5 loudspeakers, vgc, excellent sound £200: Tel: 020 7622 5420 (Nov)

AUREX SYSTEM SY-C15 pre-amp, mint condition, Audiovalve PPP45 monoblocks. Excellent condition, Pionner PD91. Reference CD player, mint, £1100. Audiovalve Assistant integrated amp, mint £500: Monarchy Audio 18B De-Lux DAC £275. Tel: 01252 659 058 (Nov)

DONCOX floorstanding speakers. Fantastic value £595. Tel: 07899 513 805 (Nov)

ORACLE DELPHI Mk1 Fidelity Research silver wired arm £600. Sony CDP 373ESD £100. Sony MDS J520 £100. Saec WE300L tonearm £400. Aureos Isolators £100. Project phono box £20. All £90; two BI10’s £50; one T27 £18. (Nov)

Ref GR60, boxed, unused, £1750 ono. Tel: 07808 472 229 (Nov)

MUSICAL FIDELITY Tri-Vista 21 DAC £600. (£1200). Roksan Caspian M Series CD player £500 (£1100) Both as new. Tel: 020 8393 4265 day, 01737 362 899 evenings. (Epsom) (Nov)

CHORD 1200C power amp £2100 (£4800); ProAc Response 2.5 rosewood £1200 (£3200). Linn Kain, Karik, Numerik (latest specs) £1800. Tuner, cables and StandDesign unit. All boxed and mint. £14,000+ new. £5000 the lot. Tel: 07808 472 229 (Nov)

MUSICAL FIDELITY A308 CD player, pre amp and power amp £2600 the lot. £900 each. Mint, boxed. Also Monitor Audio Gold Ref GR60, boxed, unused, £1750 ono. Tel: Steve 07921 572 823 (South London) (Dec)

CLASSIC CROWN DC300A professional power amplifier, output: 2 x 150 watts into 8 ohms. Stunning sound quality, in great condition, recently serviced, two available £395.00 each. (postage extra). Tel: 07932 664 480. (Dec)

SONUS FABER/Audio Analogue Concertino speakers. Leather and walnut to include matching stands. Bi-wire. £750. Puccini Integrated amp to include Chord Company solid interconnect. £350. All vgc. Tel: 01227 370243 (Kent) (Nov)

ARCAM FMJ CD23 CD player, A22 amp, P25 power amp, B&W CDM9NT speakers, DN4 Reson cable bi-wired 4 x 8 metres. Sensheiner HD580 headphones. Run-in 500 hours. £3000 ono. Tel: 01324 622 059 or mobile 07970 330 903 (Nov)

www.choice-hifi.com

BUY/SELL
HOME CINEMA
MULTIROOM INSTALL
HI-FI

classifieds
When you listen through any Stax electrostatic earspeaker, the air becomes sweeter, colours seem brighter and your senses come alive.

Demand for STAX products always exceeds supply. Consequently global representation is deliberately restricted.

STAX earspeaker systems range in price from £349 to £2,495 including vat.

You can enter the STAX family via previously owned systems from as little as £150 from us - complete with parts and labour warranty.

We demonstrate and supply the largest range of STAX products anywhere and we only sell STAX.

www.simplystax.co.uk
Telephone 020 8447 8485
Ask for Howard

“Now All your New and Preowned Hifi can be Bought and Sold Here”
Everything from Amplifiers & Valves to Loudspeakers & Cables.

With Convenience and Security.
Dedicated to the U.K
and European Community.

Your Adverts will be in High Resolution color ads,
seen throughout Europe!

Special incentives for Dealers and Sellers of multiple items

For multiple listings and rates please inquire to:-
aaudioman@hotmail.com

www.AudioAuctionHouse.co.uk

“Now All your New and Preowned Hifi can be Bought and Sold Here”
Everything from Amplifiers & Valves to Loudspeakers & Cables.

With Convenience and Security.
Dedicated to the U.K
and European Community.

Your Adverts will be in High Resolution color ads,
seen throughout Europe!

Special incentives for Dealers and Sellers of multiple items

For multiple listings and rates please inquire to:-
aaudioman@hotmail.com

GREAT RESPONSE!

My last advert, which included a reference to my favourite CD player, namely the AVI Reference, which I have used for many years, has produced a number of phone calls from people who are equally impressed, and it's almost certain that the new Laboratory CD player, will become as popular as the superb Laboratory Integrated Amp. At £1469 and £1499 (£1699 with phono stage) respectively, you needn't really think of spending much more. So, my thanks for those who bothered to respond! Add one of the smaller AVI speakers (Nu-neuron IV, Pro-Nine +), and you will have a really musical system, but there is nothing like a true 3 way speaker, and now AVI have two models, the Trio at £3250, and the just introduced Brio at £4750 (see www.avihifi.co.uk), with the Brio in particular creating a superb sound stage. At similar prices I also have the Nola Elite Lotus/ Signature, and the superb little Napoleon 5.1 (£200/speaker, also great in stereo) surround system, including probably the best subwoofer around for only £1800. Add the only other amp I consider after the AVI, namely the Eslab Pre/Power (300watt Digital Amp), a range of turntables from SME, Origin Live, Avid, and VPI and I promise you a visit would be worthwhile, so do phone or send me an e-mail (icvhifi@yahoo.co.uk).
GRAND M25 AUDIO
JUMBLE @ Leatherhead Leisure Centre, M25, Junction 9, Saturday 23rd October, 10.30am. Tel: 07730 134 973 for details (Nov)

VINTAGE HIFI/Record/Music Collectors Fair. Sunday 6 November 2005. 10.30am to 3.00pm. Admittance £3.00. Early Admittance 9.30am £10.00. Wolsey Hall, Windmill Lane, Cheshunt, Herts EN89AA For Stall Details Phone Ray 07940110666/Paul 01992 714664 or Email: fair@antfarmstudios.co.uk (Nov)

HIGHLAND AUDIO offers ex-demo AVI audio integrated amplifier (new model) with MM/MC phono stage. £1800 now £1450. Ecosse Reference Cable - 0.8m Maestro SE a interconnect cable RCA, £175 now only £125. stereo pair 6m £52.3 (mono crystal) speaker cable banana factory terminated, £355 now only £245: all carriages paid within UK - contact 01463 831 658 or highlandaudio@aol.com (Nov)

NO:WEBSITE Email 0% Finance TV plasma naff efforts after 7pm, or Email: fair@antfarmstudios.co.uk (Nov)

“AMPS” VALVE Equipment repaired, restored and upgraded. Kits built. Experienced engineer, free quotations. Valves (tube) equipment only. Tel: 01525 756935 or Email: amps@dhaen.co.uk http://www.dhaen.co.uk/amps/ (Nov)

“AMPS” VALVE Equipment repaired, restored and upgraded. Kits built. Experienced engineer, free quotations. Valves (tube) equipment only. Tel: 01525 756935 or Email: amps@dhaen.co.uk http://www.dhaen.co.uk/amps/ (Nov)

VINTAGE WIRELESS COMPANY LONDON Website: www.vintagewirelesslondon.co.uk Buy-Sell-Exchange. Vintage Hi-Fi. Repairs, Spares, Restoration. All valve equipment Wanted for cash: Tannoy, Quads, Garrard and audio valves. Please call us at 17 Bell Street, London, NW1 5BY. Tel: 020 7258 3448 Fax 020 7258 3449 Email: vwirelesslondon@aol.com (Jun06)

BRILLIANCE'S SYNERGY interconnects were DP’s selection in his £5000 vinyl system (Sep05) “An excellent budget choice”. Also Teflon digital, audio, video interconnects and speaker cables. Demonstration cables available. Contact Mike on 07963 117 341 www.brilliancehifi.co.uk (Nov)

AUDIOPUBLICATION, 78 Otley Road, Headingley, Leeds, 0113 217 7294. Yorkshire’s newest Hi-Fi retailer, stockists of Naim Audio, Rega Research, Conrad Johnson, Sugden, Dynavector, (cartridges and amplifiers) and many more. Please call for advice. (Nov)

AMAZING CABLES! Solid silver interconnects from £110, with air/teflon insulation and WBT plugs. Silver speaker and mains cables from £250. Fantastic performance, refund guarantee. Tel: 0115 982 5772 after 7pm, or Email: bob@skydivers.co.uk (Dec)

FOR SERVICE, repairs, upgrades and re-manufacturing of all valve audio equipment. Also bespoke leads to order. Contact E.F.G. (London) Limited on 020 8742 2727 for details, over 40 years experience. (Nov)

AUDIOFILE OBJECTIVE for New, XDisplay and Pre-Owned Hi-Fi. Roksan, Epos, Muscal Fidelity, Revolver, Creek, Marantz, Inca-Tech, Project, QED, van den Hul, Hetz, CM2 9JX. Tel: 01279 724 024. LM3190, 45J02 & Pure Silver Cryo Superb Interconnects with air/teflon insulation and WBT plugs. Silver speaker and mains cable terminated, £355 now only £245: all carriages paid within UK - contact 01463 831 658 or highlandaudio@aol.com (Nov)

VINTAGE WIRELESS COMPANY LONDON Website: www.vintagewirelesslondon.co.uk Buy-Sell-Exchange. Vintage Hi-Fi. Repairs, Spares, Restoration. All valve equipment Wanted for cash: Tannoy, Quads, Garrard and audio valves. Please call us at 17 Bell Street, London, NW1 5BY. Tel: 020 7258 3448 Fax 020 7258 3449 Email: vwirelesslondon@aol.com (Jun06)

BRILLIANCE’S SYNERGY interconnects were DP’s selection in his £5000 vinyl system (Sep05) “An excellent budget choice”. Also Teflon digital, audio, video interconnects and speaker cables. Demonstration cables available. Contact Mike on 07963 117 341 www.brilliancehifi.co.uk (Nov)

THE LINK FAMILY - Pure Silver & Cryo Treated Solid Core Interconnects with Prices starting from just £99 & Pure Silver Cryo Reference Litz Loudspeaker Cables with RFI reducing technology from only £530. Full Range of High Performance Power Cables and Silver Plated Distribution Systems starting from just £30 - Also a large range of DIY Supplies and Eichmann Products at unbeatable prices. All of our cables are designed and hand-built in our own production facility, Bespoke work always welcome. The Missing Link - Better by Design - Contact us today - we will be happy to assist - 0115 8797989 www.the-missing-link.net (Nov)

WANTED - EARLY HI-FI LOUDSPEAKERS Tannoy, Lowther, Parmelko, Voigt, Vitavox, RCA WE etc. TURNTABLES Garrard, BBC301, EMT SME, Ortofon, Decca, etc. VALVE AMPLIFIERS AEI, EMI, Leak, Rogers, PYE Quad, WE etc. AUDIO VALVES DA30, KT66, KT88, PX4,PX25, PP3/350, WE300 CLEAR CRYSTAL SYSTEMS John Petrie-Baker Tel: 020 7328 9275


SUPERB INTERCONNECTS, Mains Cables and Accessories from Simon Lewis Audio. Hand made in England from top quality components (using Teflon, Gold, Silver and other materials) Good customer feedback. Website: www.SimonLewisAudio.co.uk (Nov)

VINTAGE HIFI/Record/Music Collectors Fair. Sunday 6 November 2005. 10.30am to 3.00pm Admittance £3.00. Early Admittance 9.30am £10.00. Wolsey Hall, Windmill Lane, Cheshunt, Herts EN89AA For Stall Details Phone Ray 07940110666/Paul 01992 714664 or Email: fair@antfarmstudios.co.uk (Dec)
December's Hi-Fi World examines DIGITAL IN DEPTH. We ask whether it is audio's state of the art, or the enemy of music? We listen to three generations of CD players from the eighties, nineties and noughties (multibit, Bitstream and upsampling), and then in our supertest round up eight of the latest and greatest digital disc spinners, We examine 'the good, the bad and the ugly' of digital audio, take a detailed look at computer audio archiving and examine the phenomenon of Digital Radio Mondiale. Here's just some of the kit we hope to bring you:

- CD spinner supertest: Cyrus CD6, Musical Fidelity A3.5CD, Naim CD5i, Quad CDP-2, Shanling CD-T80 & Sony SCD-XA3000ES
- Hermstedt HiFiDelio digital audio server
- Musical Fidelity kW CD transport & DAC
- Marantz SA15S1 SACD player
- Denon TU1800 DAB tuner
- Net Audio Sonance DAC
- Copland CSA29 amplifier
- Pinsh Two loudspeakers

PICK UP THE DECEMBER 2005 ISSUE OF HI-FI WORLD ON SALE OCTOBER 28TH, OR SUBSCRIBE AND GET IT DELIVERED TO YOUR DOOR: p71
classifieds ads order form

RATES - ALL ADVERTS MUST BE PRE-PAID

Maximum length per advert is 30 words, each additional word is 50p extra. Telephone numbers and E-mail addresses are treated as one word. Model numbers are treated as one word i.e. Quad 303 = two words.

Please tick the box for the advert required

Private magazine advert
Private magazine advert display black box
Trade magazine advert
Trade magazine advert display black box

Please write or type your advertisement copy in block capitals with one word per box. Please continue on a separate sheet if necessary.

WE WILL ACCEPT PHOTOCOPIES OF THIS FORM

Name
Address
Post Code
Daytime Tel:

Please debit my VISA/MASTER/SWITCH Card No. (Switch card issue No. ____________)
Valid Date: ____________ Expiry Date: ____________ Cardholder Signature: ____________

I enclose a cheque/postal order for £ ____________ Made payable to Audio Publishing Ltd.

Send in your private classified ads with our NEW Freepost service. No need for a stamp!

Send this form together with your payment in an envelope marked:

Hi-Fi World, FREEPPOST LON3478, LONDON NW6 6YR

ADVERTISERS INDEX

Absolute Sounds 90
Acoustica 46
Acoustic Energy 18
AN Audio 122
Audio 42 42
Audio Atmosphere 102
Audio Auction House 126
Audiolab 22
Audusa 111
Big Ears 109
Billy Vee 89
BK Electronics 62
Central Audio 116
Choice Hi-Fi 123,125
Clarity Cap 90
Classique Sounds 113
Custom Cable 115
Cyrus 54
Dali 6
Definitive Audio (Notts.) 50
Diverse Vinyl 124
Heathcote Audio 115
Heatherdale Audio 114
Henley Designs 58,68,66,96
Hi-End Cable 114
Hi-Fi Sound 117
Hi-Fidelity 62
Ian Harrison 122
Icon Audio 70
Kt & Component 98
Krystal Kable 62
Linn 8C
Listen Carefully 113
Mantra Audio 88
Marantz 26
Michell Engineering 50
Midland Audio Exchange 110
Missing Link 88
Musical Fidelity 56
Musonic 114
Neat Acoustic 46
Noteworthy 62
Origin Live 54,124
Oxford Audio 116
QTA 112
Real Hi-Fi 114
Retro Reproduction 109
Rochester HiFi 109
Rotel 1FC
Sevenoaks 28,29,30,31,32,33
Shadow Audio Con. 82
Simply Stax 126
Sound Gallery 50
Sound Venture 8
Stow sounds 124
TACT 38
Teac 14
The Listening Rooms 112
Townshend 70
Trichord 64
Tube Shop 88
Walrus 12
Whest Audio 64
Williams Hart 112
FRANK SINATRA
COME FLY WITH ME
1957

The most important, interpretive singer the world has ever known, bar none. A man who was influenced by his own heroes, Bing Crosby and Billie Holiday and, in turn, became an influence and a hero for thousands of singers since. From Bobby Darin to Jamie Cullum, Sinatra is not only Swing, from a jazz perspective, he is possibly the greatest ballad, but most certainly the greatest saloon bar, singer in vocal history.

His dramatic style breakthroughs began in the 1940s with his removal of the syncopated style and then subtler, yet just as powerful, changes in basic singing style. His incredible extended breathing technique, note accentuation, use of words and syllables (often introducing his own lyrics into a song) are all used for dramatic effect and are included without losing the meaning of the phrase. In fact, these basic mechanics and modifications count for more than the quality of his voice. In addition, Sinatra almost single-handedly reinvented the standard. The majority of other singers jumped on the latest 'plugged' tunes the labels pushed out the door. He then turned carefully chosen numbers into modern standards...

Arranged by Billy May, the man whose trademark slurping saxes make a comeback on this project, 'Come Fly With Me' introduced the first concept album onto the market, taking the listener on a jaunt around the world, visiting exotic lands: 'South Of The Border', 'Autumn In New York', 'April In Paris' and 'Isle Of Capri'. With May, however, Sinatra was able to introduce, shall we say, lesser songs and have real fun with them. 'South Of The Border', for example, was often sung in a slightly camp manner previously. Sinatra gives it a testosterone injection, declaring to all that he's off to Mexico to get laid. But then, he turns around and throws Autumn In New York in your face, brimming with heartfelt melancholia.

The surprise package of the album, a real eyebrow raiser, is the sassy version of 'On The Road To Mandalay', based on the Kipling poem. In fact, the UK fans always saw this particular number as a real rarity. Mainly because it was banned in the country by the Kipling estate. Sinatra raged, "Kipling's daughter had the nerve to ban that in England! How dare she?" He then added, rather sarcastically, "Of course, she drinks a little bit, so we'll forgive her."

The most magnificent aspect of the song is the ending, which seems to end, just as Sinatra is building up the song for a big finale, almost halfway through a line. In fact, the song was supposed to finish on the strike of a large gong. Instead, at that point during the recording, Sinatra just picked up his hat and coat and left the studio. The studio band collapsed in laughter and wondered when he was going to come back to finish the song. But he never did - that was how the song was released. The variations in style and mood on the album were many. A straight-ahead waltz, 'Around The World', a song that many believe is the best ballad on the entire album, showed the surprising sensitivity of May as an arranger, while 'Isle Of Capri' is almost a send-up of the old fashioned - even then - Tin Pan Alley style of writing. Then there's 'Moonlight In Vermont', a song that contains no clichés, a rarity...

Finally, for the opening track, Sinatra, although no songwriter, showed how his influence and feel for a song was right on the money. Written by Sammy Cahn and Jimmy Van Heusen, the title track featured the line "If you could use some exotic views/there's a bar in far Bombay". Cahn later declared that he informed Sinatra that he had also produced a slightly racier lyric, mainly for Sinatra's Vegas crowd, swapping the 'views' word for 'booze'. Cahn didn't think the word could be used for a Capitol release, as a family album. Without missing a beat, Sinatra ran off and corralled the entire studio band, who were busy supping their own booze at the time and re-recorded the song with the now familiar 'booze'.

Look out for a remastered version of the album with three extra tracks. The first, 'Chicago', was used to replace the banned 'Mandalay' on the original UK release. The second, 'South Of The Border' is included in its alternative mono version and, the third, is 'I Love Paris', a Cole Porter classic.
ASHFORD
Soundcraft 01233 624441

BATH
Audience 01225 333310

BANBURY
Overture 01295 272158

BRIGHTON
Audio T 01273 609431

Bristol
Audio Excellence 0117 926 4975

CAMBERLEY
Audio T 01276 685597

CHELMSFORD
Audio Counsel 01603 699000

CHELTENHAM
Audio 1 01242 583960

CHESTER
Acoustica 01244 344227

CROYDON
Kimberley Audio & Visual 020 8654 1231

EDGEHILL
Music Matters 0121 429 2811

EPSOM
Audio T 01372 748888

EXETER
Sevenoaks Hi-Fi 01392 218893

GUILDFORD
PJ Hi-Fi 01483 304756

HAYWARDS HEATH
Norman Habbs 01444 411356

HIGH WYCOMBE
The Sound Gallery 01494 531682

HORSHAM
Audio Designs 01403 267766

Livington
Audio Room 01823 326688

LONDON NI
Grahams Hi-Fi 020 7226 5500

LONDON N2
The Studio 020 8348 0990

LONDON SW1
Billy Yee Sound Systems 020 8318 5755

LONDON SW11
Creative Audio 0171 241024

Manchester
Fortissimo 07716 869276

PORTSMOUTH
Audio T 023 9266 3604

READING
Audio T 0118 958 5463

Salisbury Hi-Fi 01722 322169

SHEFFIELD
Audio Images 0114 273 7893

SOUTHAMPTON
Creative Audio 0171 241024

ST. ALBANS
Tom Tom Audio 01727 893928

TAUNTON
Mike Manning Audio 01823 326688

ST. ALBANS
Mike Manning Audio 01823 326688

TAUNTON
Robert Ritchie 01743 241024

Worcester
Audio Excellence 01905 619059

WORTHING
Phase 3 Hi-Fi 01903 245577

YEOVIL
Mike Manning Audio 01935 479301

York
The Sound Organisation 01904 627108

This list does not constitute the full naim retailer list but those which carry the full range of AV System including speaker packages.

For more details please telephone
+44 1722 332266

or visit
www.naim-audio.com

"...the performance is in a league of its own..."  Home Cinema, June 2005