EXCLUSIVE!

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ROKSAN K2
integrated amplifier

FUNK FIRM VECTOR LINK
LP12 turntable

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Welcome to Hi-Fi World's annual Awards Special Issue! Writing this is one of the greatest challenges I face each year, not because it's so tough to find winners in each of the eight categories, but because of the products I'm forced to leave out simply because there can be only one winner and only one runner up.

Whilst the economy might be in turmoil right now, in terms of new hi-fi products reaching the market, we're going through something of a purple period — I don't think I can remember standards being higher, and there's ever more diversity and choice for the customer...

Ten years ago for example, there were hardly any interesting new turntables coming out, few decent valve amplifiers, some very average phono stages on the market and a rather uninspiring choice of loudspeakers. As for digital, it was light years behind what we're seeing now.

By contrast, 2008 has so much good stuff that there have been several great contenders across all the categories, all offering similarly high standards but with differing sonic flavours.

I suspect any of this year's crop of worthy winners will stand up to scrutiny a good long time from now - and will doubtless still be in use by countless delighted customers. So we at Hi-Fi World would like to extend our congratulations to all the manufacturers concerned.

Incidentally, we've seen a couple of new categories this year — Systems and Computer Audio. Reflecting a changing market, more people are after one-make hi-fis that don't compromise on sound, and we're seeing the growth of computer-based products to play music. It was almost exactly ten years ago that this magazine first started featuring 'computer audio', to the incredulity of many, but now we're seeing serious mainstream products appear almost every month.

Watching these developments in hi-fi is a fascinating process. The industry takes its own, interesting and often unpredictable trajectory — and great new products arrive, reflecting this. Read our Awards Special from page 73.

Here's wishing you all a Merry Christmas and a Happy New Year!

David Price, editor

testing

To ensure the upmost accuracy in our product reviews, Hi-Fi World has extremely comprehensive in-house test facilities, and our test equipment - from big names like Rohde & Schwarz and Hewlett Packard — is amongst the most advanced in the world.

Loudspeakers are measured using a calibrated Bruel & Kjaer microphone feeding a Clio-based computer analyser, using pulsed and gated sinewaves, in a large room to eliminate the room's influence. Pickup arm vibration is measured with a Bruel & Kjaer accelerometer. No other UK hi-fi magazine has in-house testing, and none has access to such advanced tests across all types of equipment. That's why you can depend on Hi-Fi World reviews.

verdicts

simply the best
extremely capable
worth auditioning
unremarkable
seriously flawed
keenly priced

ELECTRONIC MAGAZINE

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STEREOTYPES
Following on from the announcement of their new 5003 series budget separates last month, Marantz has a new mid-price CD player and amplifier combination out. The £630 PM8003 integrated stereo amplifier is the new flagship powerhouse in Marantz’s totally revamped ‘Range’ series of Hi-Fi electronics. Capable of delivering over 200 Watts across its two channels, it is powered by an oversized bespoke toroidal transformer. This is surrounded by new dual mono circuitry topology with short mirror imaged signal paths. Elsewhere, you’ll find hand-selected components, such as rectification by Schottky barrier diodes and the Marantz’s bespoke Hyper Dynamic Amplifier Modules. This is allied to pre, power and volume-control circuitry that is separated and extensively shielded in their own enclosures to prevent crosstalk and other unwanted interference. The circuits also employ a substantial heatsink for maximum efficiency. Meanwhile, a Source Direct function bypasses the tone control circuitry, and an Amp Direct mode also means the PM8003 can operate as power amplifier only. The electronics are housed in Marantz’s new solid metal, reference-standard chassis - a rigid, dual layer enforced design with a thick anodised aluminium front panel, an additional heavy bottom plate, and a three-piece construction front panel comprising thick aluminium and reinforced glass fibre resin, with copper plating of the chassis and rear panel. A ‘top quality’ current feedback MM phono stage is fitted, directly derived from the company’s £2,500 SC-11S1 Premium range pre-amplifier.

Partnering it is the new £700 SA8003 SACD player, incorporating engineering lessons learnt during the construction of the company’s flagship £5,000 SA-7S1 design and every aspect of its construction has been developed to attain uncompromised quality at a competitive price, the company says. Under this new skin is a raft of new engineering, including a new ultra rigid Zylon loading mechanism, which eliminates any chance of negative vibration influence, it is claimed. At its heart is a 24bit/192kHz CS4398 digital to analogue converter with DSD Support, from respected manufacturer Cirrus Logic. You’ll also find bespoke thick film capacitors, Schottky diodes, and Marantz’s Current Feedback HDAM SA-2. To further improve sound quality, there is a high-grade power supply centered on a toroidal transformer, with independent power supplies for each dedicated system block for maximum separation, clarity and dynamics. Completing the package are gold-plated connections and a remote control, while a USB port allows audiophiles the opportunity to connect lossless digital files directly to the player’s DAC for ultimate quality replay. For more information, click on www.marantz.co.uk.

TEAC FINISH
TEAC has finally launched its new Reference Series - the 380 hi-fi mini component range. Described as a “leading-edge product with state-of-the-art technology and facilities”, it sports DAB/DAB+ and Internet Radio, plus AM/FM radio, MP3 playback from CD or via a front-mounted USB socket, an optional iPod dock, high quality circuitry, tone and balance controls and CD Direct no less! The complete system - PD-H380 CD Player, T-H380DNT DAB/AM/FM Internet Radio Tuner and A-H380 Stereo Amplifier - is available at a recommended retail price of around £499, with the optional DS-20 iPod dock (which supports both audio and video and full-remote control over any iPod, including the iPhone) costing just £25.00. See www.teac.co.uk.

LUX LIFE
Luxman Corporation has just added to its eightieth anniversary Commemoration model family a new pair of siblings with the introduction of the C-600f stereo control amplifier and the M-600A Pure Class A stereo power amplifier. These are available to audiophiles and music lovers in the United Kingdom exclusively through Select Audio, one of the UK’s premier high-end audio distributors. “We are very excited about offering Luxman’s most affordable amplification in their reference line of luxury audio products,” explained Stephen Riddick of Select Audio. “The B-1000f 80th Anniversary Commemoration Monoblocks have won almost every high-end audio award in Japan, and most of their technology is now available in the M-600A”. The M-600A Pure Class A stereo amplifier is rated at 30 Watts per channel into 8 ohms, or 120 Watts continuous into 2 ohms. The C-600f and M-600A will retail for £4,995 each and will be available through an exclusive network of high-end audio retailers. For more information, call +44(0)1900 813064 or email select.audio@topcoll.co.uk.
JAMO B HERE

Jamo's Reference Dipolar loudspeaker line now has a smaller R 907 model. Following the success of the huge R 909 open-baffle stereo loudspeaker, the new Jamo is a less space-consuming speaker system. Said to be "incredibly open and dynamic, with extremely low distortion throughout the entire range", it is claimed to have a firm, powerful and punchy bass unmatched by any other manufacturer's mass-produced dipolar speaker. It comes fitted with two 305mm/12in woofers, a 140mm/51/2in midrange and a customised 25mm/1in DTT (Decoupled Tweeter Technology) tweeter. The three-way R 907 employs a 43mm/1.7in thick baffle with a complex 7-layer lacquered multi-ply construction, a testament to this Danish company's immense experience with traditional woodworking skills. Weighing in at a chunky 52.4kg, it stands 119cm high and is anchored by a substantial cast-iron plinth for additional stability. A relatively simple first and second order crossover employs Clarity Cap foil capacitors and air-coil inductors. Price is £5,499.99 a pair, available now in black or red. Click on www.bbg.eu.com or call +44(0)1923 205605.

SING SOMETHING SIMPLE

T+A's new £1,999 'Caruso' is a beautifully styled one-box DVD and Network Client System, superbly built from solid aluminium panels and base plate. A single compact package, it can access anything which supplies music: CD, DVD, VHF radio, Internet radio, network music (MP3, WMA, AAC, WAV, FLAC, OGG Vorbis), USB media storage units, MP3 players and of course, iPod dock with full control. All these can be played through its integral loudspeaker and subwoofer system, aspirated by three power amplifiers, each delivering 50 Watts of continuous power. There's also the option for connection to a separate amplifier or active speakers (T+A offer their own matched solution called the 'CM Active') to enable a sound stage "as big as you like". You can then opt to use the external speakers with or without subwoofer and with another option of utilising the internal front speakers to create a three point sound stage. For details, click on www.taelektrookustik.com.

THE RIGHT ANGLES

Tangent's new EVO E5A active loudspeaker can be connected directly to a flat screen TV, computer, music server or iPod. It can work as a mono speaker or connected in a series of ten speakers or more. Furthermore, a standard 3.5 mm jack cable is all that is necessary to transport a stereo signal to a long string of EVO E5A speakers and subwoofer. The volume of all these speakers can be controlled by a single remote control as well. The company also has an interesting new Wi-Fi radio, the NET-200, giving access to more than 13,000 Internet radio stations from all over the world. It also receives local Digital Audio Broadcasting stations (and is also prepared for DAB+), and can even access music on the web, stored on his or her computer, a NAS server or MP3 player. Based on the latest Reciva Stingray module, it is also said to feature "an excellent digital-analogue converter" and a digital output is also provided for hi-fi enthusiasts who wish to use their own D/A converter. The radio's software can be updated over the Internet as well. For more information, see www.tangent-audio.com.

ONE LOVE

The new £79 OrbitSound T3 is a personal battery powered stereo speaker for listening to music on the move. No bigger than a mobile phone, it is worn around the neck and plugs into your iPod, music phone or personal media player, giving "perceived volume levels inside the aura far higher than those heard by others outside of it. The result is literally music in the air", it is claimed! This is thanks to a new product concept made possible by airSOUND single point stereo. Placing it on a flat surface, the T3 doubles as a travelling high quality airSOUND stereo sound system. It measures just 102x60x20mm and weighs 115g, and is powered by a lithium rechargeable battery providing up to 10 hours playing time on a single charge. For more information, click on www.orbitsound.co.uk/shop.

CREDIT CRUNCHERS

The new KEF C Series is the company's latest entry-level range, claimed to be highly efficient yet very realistic. "The most subtle nuances are reproduced, untainted by any vibrations by an internally braced cabinet and dense, two-layer front baffle system", KEF says. "Carefully contoured front slot ports help deliver a widely dispersed, extended bass, and high frequencies are accurate and detailed thanks to the same 19mm (0.75in.) 'Tangerine' waveguide as used on the latest KEF Q range", it is claimed. The range is engineered for a perfect tonal match between every model so the listener can combine them however they wish. All models are available in either classic Black Ash or a fine-grained European Walnut finish. Prices start at £139.99 for the C1 bookshelf to £479.99 C7 floorstander — the C3 is pictured. For more information, click on www.kea.com or call +44(0) 1622 672261.
STREAMADELICA
We’ve just heard that Leema’s fine Stream CD player has undergone a major upgrade, with its surface mount components being replaced by hand matched high grade audiophile parts in key areas of the player. Whilst this has led to a small price increase to £1,195, the performance has substantially improved with distortion levels lowered by 16dB at 20kHz resulting in a much blacker background, finer high frequency detail and better spatial awareness, the company says. Unchanged from the original Stream are the sixteen 24bit/192kHz multibit Delta-Sigma converters used in Leema’s unique MD2 Active Differential Multi-DAC configuration. The stereo output is derived from a fully balanced signal generated in the digital domain producing an incredibly real and tactile musical performance with almost no noise and distortion. Also retained is the L-Drive, the Stream’s single control which intuitively performs all the usual CD functions such as CD tray open and close, play, stop, previous and next track selection and even direct track access. “The new Stream effortlessly presents music with precision, power and an analogue-like delicacy within an expansive yet explicitly focused soundstage”, the company says. For more information, call +44(0)1938 811900 or click on www.leema-acoustics.com.

BLU TIME
After showing their first high end Blu-ray transport for over a year, Denon have finally announced their first all-in-one integrated player. Not only does the £1,600 player deliver Denon’s best pictures to date, it also releases the amazing audio ability of Blu-ray, the company says. It is also said to “work wonders with DVDs, implementing some of the most powerful upscaling technologies available to get conventional discs as near as possible to full HD”. The machine is the world’s first Blu-ray player to feature the 10-bit Silicon Optix Realta chipset, said to provide users with the highest resolution high-definition video available today via an HDMI connection, as well as the ultimate in audio performance, including high-definition audio decoding and D.D.S.C.-HD audio output. The Denon player implements a newly-developed Dynamic Discrete Surround Circuit High Definition (D.D.S.C.-HD) circuit to support the latest HD audio formats. This topology uses discrete devices for ultimate performance in each circuit block and Dolby TrueHD and DTS-HD Master Audio decoders. Elsewhere, you’ll find Denon’s Advanced AL24 Processing along with Pure Direct mode, for greater audio signal purity.

The new machine also features a unique drive mechanism that Denon specifically developed for use with Blu-ray discs. To further protect the internal disc space from magnetic influences, dust, and external noise, Denon improved its mechanism unit from previous DVD players by adding a shield to the bottom and top of the unit, creating an ideal playback environment inside. In addition, Denon incorporates its Suppress Vibration Hybrid (S.V.H.) loader constructed with a combination of different materials to ensure stable disc rotation and greater accuracy in disc reading. The video and power circuits have been separated into two independent blocks within the chassis, and to eliminate signal degradation caused by interference between circuits, each circuit has been mounted on its own board. In addition, the top cover features two-layered construction to protect from vibration. It comes in a choice of silver, ‘premium silver’ and black finishes. For more information, click on www.denon.co.uk.

SINGLE SEATER
The new £2,000 Tron Seven Mono Phonostage has been made specifically to get the very most from mono records and the latest mono cartridges. It comes with switchable equalisation for the three main equalisations (RIAA, CCIR and FFRR) but custom ones can be specified if clients require a special EQ other than these. Graham Tricker has designed it to make it very simple for selecting the different equalisations, and it can be configured for MM or MC or both, and has an option for two phono inputs. For more details call +44(0) 1895 833099 or click on www.gtaudio.com.

SPENDOR SPREE
The new £1,495 Spendor A5 and £1,895 A6 are compact high performance floor standing loudspeakers, said to benefit from important advances in Spendor’s drive unit technology, cabinet design and crossover engineering. The Spendor A5 offers “exceptional performance in relation to its compact dimensions”, while the A6 “lifts performance to an even higher level with noticeable improvements in clarity, resolution and bass extension”, it is claimed. Spendor has developed a pair of 15cm drivers specifically for the new A5 and a new 18cm driver for the new A6. With magnesium alloy chassis, excellent power handling and “extremely low colouration” these new drivers give the loudspeakers a remarkably big and powerful sound, say Spendor. A new 22mm wide-surround tweeter for the A5 and an advanced 29mm wide-surround tweeter for the A6 combine the extended frequency response of a small diaphragm with the low frequency characteristics of a larger diaphragm to give stable low distortion response over a wide frequency range.

A new approach to low-frequency engineering with minimum damping of the acoustic enclosure, combined with a 4th generation Spendor linear flow port, give the A5 and A6 an unrivalled ability to deliver deep articulate bass, the company claims. Phase linear crossover networks integrate the drivers seamlessly, with no series attenuating resistors in circuit. Spendor use precision wound high-linearity tapped inductors, which not only eliminate distortion but also allows very fine tuning of frequency response, which ensures coherent and balanced sound with all kinds of music, it is said. Internal cables are high grade silver plated pure copper with halogen-free dielectric. High linearity audio grade capacitors and an easy to drive 8 ohm load complete the packages. Available finishes are light oak, wenge, cherry and black ash, and the plinth has a contrasting black satin lacquer finish. For more information, click on www.spendoraudio.com or call +44(0)1323 843474.

World Radio History://www.hi-fiworld.co.uk JANUARY 2009 HI-FI WORLD
Radio Active

Forget audio valves - Icon Audio’s new MB845 monoblocks use radio transmitting tubes to supply their motive power. Noel Keywood finds them to be real live wires!

This is the amplifier of my dreams. In 1994 we built a massive 211 amplifier at Hi-Fi World and its sound blew me away. I’ve waited ever since for something like it, preferably equipped with the similar 845 valve - and here it is. Icon Audio’s new MB845 monoblock amplifiers combine stunning dynamics with all the listenability of valves, at a price that in hi-fi terms is a snip, the pair costing £2,500 in standard form. For this you get two weighty monoblocks, each delivering a claimed 90 Watts. They also look good, but believe me that’s a side issue. It’s sound quality I’ve been hankering after for so long and they didn’t disappoint.

If mention of 211s and 845s is a step - or perhaps many steps - too far into the obscure cult of the thermionic valve (tube) let me explain. Generally speaking, the larger the valve, the more power it can handle. The 211 is a monster as valves go, and can deliver real power. The 845, with its high temperature graphite anode, can handle even more, 25% more according to original RCA data sheets. Both are large power triodes that can be used in audio amplifiers - or transmitters! Both are ‘difficult’ to use, mainly because they run at seriously high voltages, way beyond those of today’s more conventional valve amplifiers. The 211 amplifier we built scared me with its 1,300 Volt HT line, compared to 500 Volts or so for a conventional valve amplifier. That’s why 845 amps are rare birds at present. They aren’t an easy technology at many levels, demanding crucial high voltage parts, especially the output transformer. I have a feeling though that this will change, as the world cottons on to what valves are about and gets to see and hear extraordinary devices like this.

Amplifiers using big triodes will always be expensive, usually more so than these Icon Audios, I suspect, because they have been designed not to break the bank. Each monoblock uses a pair of Shuguang Electron Tube 845Bs in push-pull. Often, 845s are driven by an expensive 300B but in this amplifier designer David Shaw has used a choke loaded 6SN7, an inexpensive low impedance double triode, the choke giving it plenty of voltage swing. It helps keep down cost against the common 300B alternative, and weight and cost down against our use of driver transformers in our Hong Kong bound 211.

The 6SN7s are preceded by another double triode, a 6SL7 acting as preamplifier and phase splitter. A £3,000 Signature version will be available, fitted with special large bulb, heavy duty Shuguang 6SN7 driver and Philips 6188, a ruggedized 6SL7. It will also use Jensen paper-in-oil coupling capacitors, now a popular idea. We used them in our tuned amplifiers and my 300B benefits from their dark, damped sound. Our review
monoblocks were in fact hybrids fitted with the better valves, visible in our photos, especially fitted with the better valves, Shuguang 6SN7 driver, but Jensen capacitors were not fitted.

Large, old style valves like these are becoming ever more popular in valve audio, because they are rugged, can deliver higher currents, are inexpensive, in good supply and - most of all - sound good. The reason for this is that they are usually very linear. So Icon’s MB845s are up with current thinking in valve amplifier design. Those big tubes with Octal bases might look antiquated but their use is deliberate. The large black boxes at the rear of each chassis house mains and output transformers. The mains transformers have ‘universal’ twin primaries that can be internally wired in series for 240V territories or parallel for 120V territories. The rear panel fuse is a 3A fast blow mains primary fuse. Internally there is an H.T. fuse that should only be changed by someone who knows what they are doing. Power supply bleed/balancing resistors are fitted so the capacitors will discharge when power is switched off, meaning dangerous voltages should not be present, providing the mains supply is disconnected.

Whilst the first triode has d.c. heaters, 845s are directly heated triodes lacking a cathode and Icon Audio use an a.c. heater supply for longer filament life. To minimise hum, hum bucket potentiometers are fitted internally. Our samples had very little hum as a result, but my own 300B amps with hum buckers have audible hum with an ear against the loudspeaker, if inaudible hum at the loudspeaker terminals, a criterion that relates nicely to the period of visual appeal and this is an influence on these amplifiers on display in a modern home. Valves have strong visual appeal and this is an influence behind their revival, I believe. Solid-state amplifiers are something of a dead end style wise, as well as in their sonics. In contrast the 845, like the 211, is an imposing device like the 211, is an imposing device designed entirely in-house, these unique amplifiers use driver transformers, the best - if most difficult - way of driving 211 triode output valves.

The Sensitivity switch sets feedback level. Icon Audio suggest Low Sensitivity (high feedback) is best. finish is a functional black crackle that relates nicely to the period of the original technologies, but may not resonate too well with today’s buyers, who are quite likely to want to put these amplifiers on display in a modern home. Valves have strong visual appeal and this is an influence behind their revival, I believe. Solid-state amplifiers are something of a dead end style wise, as well as in their sonics. In contrast the 845, like the 211, is an imposing device designed entirely in-house, these unique amplifiers use driver transformers, the best - if most difficult - way of driving 211 triode output valves.

The amplifier can be used without the covers, which simply lift off. There are no exposed voltages and although the valves run hot, it is difficult to suffer a burn. All the same, they’re best not positioned where pets or small children can reach them. Bias adjustment is provided, but this is an occasional task, once a year or so. Icon supply a meter, whose probe is inserted into a top mounted phono socket for this purpose. It measures just 0.4V, across the cathode resistor, not anything dangerous.

Icon fit a two position toggle switch to the rear panel, labelled Sensitivity. In fact it switches feedback level, which affects sensitivity. Low sensitivity is the Down position, which corresponds to high feedback. Conversely, the Up position selects low feedback and high sensitivity (also, higher distortion and lower bandwidth). Icon suggest the low sensitivity setting is used as standard. Feedback in engineering terms changes everything. In the real world, however, you find it changes a lot less - and not what you expected in any case, as the Mad Hatter might have said to Alice. This isn’t the place for a diatribe on feedback. We fitted our own World Audio Design amplifiers with feedback on/off switches and generally listeners preferred feedback On initially, likely because it gave a presentation they were most used to, but Off in the longer term, as they acclimatised to a new and subtly different presentation.

Having said this though, whilst I generally prefer no feedback in my own amplifier for the sense of easy spaciousness it provides, with Tannoy Yorkminsters feedback was best switched on to tighten bass by a small but useful degree. As Laurie Fincham, Chief Engineer of KEF, explained to me long ago, loudspeakers possess acoustic and magnetic damping to control cone behaviour, in addition the electrical damping applied by an amplifier, so quite what effect changing feedback and electrical damping (i.e. damping factor) has depends upon the loudspeaker you use...

With sensitivity set to Low on Icon’s MB845 monoblocks it is still relatively high at 440mV, so if you set it to High it becomes very...
high. To reiterate, bandwidth is widest, damping factor highest (4) and distortion lowest with these switches set in their down position, to high feedback/low sensitivity. You can switch them up if you wish however and see what you prefer. Volume will jump up when you do so, so it should be turned down an equivalent amount on the preamp. Using low feedback deepens the sound stage and adds a smidgeon of warmth, easing the sound a bit generally. However, Nigel Kennedy’s violin remained as richly detailed and densely textured at either setting I found. Only with really heavy bass from Angelique Kidjo’s Fifa album through the under damped, bassy sounding Spendor S8e loudspeakers did low feedback obviously loosen the amplifiers grip. So as I have found in the past, which setting you prefer depends upon the partnering loudspeakers and your own preferences. Changing feedback isn’t a night and day experience with valve amplifiers, but then the amounts used are limited in any case.

Exotic they may be, but these monoblocks are a straightforward user proposition. Good sensitivity of 440mV means they can be used with a passive preamplifier, like Creek’s OBH-22 that I used. All silver disc players deliver 2V more than enough, and older tuners and cassette decks commonly produce 300mV-500mV, so will just suit.

A preamplifier with a small x3 gain will suit. This should be a simple, elegant valve design, not solid-state which will only flatten dynamics and suck the life out of music.

Loudspeaker terminals are fitted for 8 Ohm and 4 Ohm loudspeakers; as you will see from our loudspeaker group test this month, modern loudspeakers are best judged as 4 Ohm devices, although there are exceptions.

Icon fit a rockier type power switch on the left side panel, near the rear - none too convenient but popular with valve amps to avoid forming an induction loop that generates difficult-to-cure hum. It was always a problem keeping this field off the first grid, a high impedance point, of World Audio Design amplifiers, when I was prototyping them.

I don’t want to frighten you, but a lifetime of DIY’ing with valves has made me a scaredy cat when it comes to thermionic switch on. I sometimes wince when turning on my World Audio Design 300B, even though it has been serving me passively since 1993. Turning on an amplifier that is going to apply 1,300 Volts to internal components is an action that causes ‘significant’ flags to wave in my mind. My 300B is prone to thrum as it absorbs a current inrush, even though it has a slow start diode; this big 845 comes on with a hum in the loudspeakers for ten seconds or so, until it settles down, when it becomes silent. The bright filaments light quickly; there’s no slow rise to a gentle glow.

As always with valves, thirty minutes are needed before the sound really starts to coalesce, and around one hour before the amps are really singing. It’s not that they sound bad before warming up, but you don’t get the full experience. When I first used them I noticed they seemed to step up a gear at intervals, moving into fourth at about one hour fifteen minutes, by which time I had moved from being mightily impressed to awe struck! That was with Monitor Audio PL300s reviewed last month, to which the MB845s are perfectly suited.

**SOUND QUALITY**

What so struck me about our 1994 211 amplifiers was their extraordinary dynamics. They were sort of like Naimos on steroids, seeming to treat loudspeakers with contempt, forcing them to do things they had previously never done. But they were very much valve amps too, with plenty of atmosphere and stage depth, plus the lovely reproduction of voices and instruments that solid-state so gets wrong, and in so doing strangles the life and soul out of music. Our 211s were a musical resurrection and, just as I was phoning Pickfords to organise getting them home, UPS turned up with a crane and spirited them off to Hong Kong. I haven’t been the same since.

Life has become a lot better now. I have had the opportunity to spend time in front of Icon Audio’s MB845s. They confirm that I wasn’t deluded in my assessment of our original 211 amplifier. The Icon Audio monoblocks also have massive dynamic resolution. So at the start of Eleanor McEvoy’s ‘Yola’ SACD, a succession of faint strikes from a kick drum in ‘I Got You To See Me Through’, almost lost by the dynamic sloth of two solid-state amplifiers of good reputation, were delivered as a short, tight stabs from a silent background by the MB845s. As bass guitar kicked in each note was fluently described and had real punch to it. The dynamic strength of these amplifiers is extraordinary.

As the Eagles ‘Somebody’ kicked off, its bass line was similarly deep, powerful and expressive - a property of these amplifiers that hit me straight away, as it did with our 211s so long ago. With so much experience in listening to amplifiers my reaction was “good Lord, where does all that come from?”. I used these amplifiers with our resident Spendor S8es, at length with Monitor Audio PL300s, to drive Robson Acoustic and Kingsound loudspeakers, and with all the loudspeakers in this month’s group test and their extraordinary bass dynamics and extreme grip held. Generally, the MB845s went lower than other amplifiers and had more grip. If anything they were a tad drier and less bloated across the bass region than other amplifiers, all this with the Sensitivity switch set downward to maximum feedback, I should add.

Then we come to an equally extraordinary midband where singers and instruments were unusually well separated, seemingly lifted from a mix and analysed under a magnifying glass. This raised Gabrielle from the complex instrumentin in ‘Forget About the World’, forcing her husky voice into my attention. Backing singers were clearly separated and sharply defined.

Similarly, Patricia Barber sang ‘Let it Rain’ against a clear, silent background, every little vocal nuance being thrust out to make for an unusually close and expressive performance. Sudden stabs from a kick drum pierced the room and were gone, exactly the same attention grabbing effect I noticed with Eleanor McEvoy’s Yola’.

With complex heavy rock performances the MB845s impose rigid separation between bass guitar,
and instruments. The MB845s are with Jensen paper-in-oil capacitors solid-state amplifiers sound unfortu-

of textural and dynamic breadth field experience arguably a left worried me. 30013 amplifiers are also a little less capacious in their edge and very slight glare that is decoupling, is in a hard dynamic and Black Gates for cathode heavily tuned 300B amplifier, fitted departure from my own somewhat comparison.

nately constricted and monotonic in quite heard before, making most solid-state amplifiers sound unfortunately constricted and monotonic in comparison.

Where these 845 amplifiers depart from my own somewhat heavily tuned 300B amplifier, fitted with Jensen paper-in-oil capacitors and Black Gates for cathode decoupling, is in a hard dynamic edge and very slight glare that is part of their peculiar ability to both lift, outline and magnify singers and instruments. The MB845s are also a little less capacious in their sound staging, but I can’t say this worried me. 300B amplifiers are arguably a left field experience against the everyday, especially when feedback is switched off. They are currently a standard for what music sounds like when amplified by a device that works properly without feedback, but I have never felt this makes their sound definitive. It is what it is, and I happen to enjoy it like many others around the world, but 300B amps are gentle on the senses shall I say?

The Icon Audio MB845Ss offer a more visceral, vivid, forward and gripping presentation, one that is not as lush and romantic. I’m pretty certain that the eye popping dynamics and forensic sense of revelation these amplifiers provide will convince most listeners that they offer one of the most exciting sounds available.

Only their upper musical registers invite question, but I am not quite sure what to conclude. Going back to the Eagles ‘Somebody’, I could perceive that the cymbals were in a studio even though the track is heavily mixed and gated; our Suiden A21A really couldn’t resolve this, providing a simulacrum by way of contrast. So there was tremendous revelation of detail and atmosphere. Cymbals had body and they crashed fiercely, whilst rim shots fired out of the loudspeakers with frightening force. However, sibilance was propelled by a similar degree of force and I found percussion being ejected with as much power as kick drum. This is not a sound for the faint hearted then. The Icon Audios aren’t so much bright in balance - far from it in fact as they are -1.5dB down at 20kHz - but intense in their treble and this is part of their character. Happily, it is superbly resolved, but these amplifiers take no prisoners all

have ever heard. Having used them with many different loudspeakers I can also say they are consistent in this too. So here are a pair of thermonic hooligans that I can thoroughly recommend as offering a great musical experience - and a unique one. They bring zest and superb insight to Rock and Classical alike.

"required hearing for anyone after an extraordinary sound..."

A small, low feedback valve amplifier like this one is different in the way it delivers power. Distortion rises progressively and overload occurs gradually with a smooth rounding of the wavetops. Using a 1% distortion limit the big MB45 delivered 85 Watts, or 90 Watts with a 3% limit using the conventional 1kHz test. However, the transformers, which are large but not vast, moved into unhappiness at around 65 Watts from a 40Hz bass tone and managed around 70 Watts maximum (3% thd), so this is the true power output as far as bass heavy Rock is concerned. This result applies to both 8 Ohm and 4 Ohm taps I should add.

At a few Watts the MB45 produced around 0.2% distortion, mainly innocuous second harmonic at frequency extremes of 40Hz and 10kHz, this figure sinking to 0.05% at 1kHz, usefully below Harold Leak’s 0.1% limit! What really matters is what is going on across the frequency band below 10V output (25 Watts into a 4 Ohm loudspeaker) and here the MB45 was producing just a little low order distortion, as our distortion analysis shows, so distortion isn’t a problem.

Sensitivity was high at 440mV for full output, meaning it will work with many phonos stages without an intervening preamp, including Icon Audio’s which have a volume control fitted expressly for this purpose. Noise was low at -102dB and hun virtuously quiet at 0.3mV, making the MB45 immensely quiet - useful when sensitive loudspeakers are used. Frequency response rolls off gently above 15kHz, the -1dB point, measuring -1.5dB at 20kHz. Whilst this is large when compared to conventional solid-state and valve designs which are mostly flat to 20kHz nowadays, it is more than countered by the intrinsic rising response of most modern loudspeakers that are commonly -2dB up at 20kHz. The MB45 will then just detectably less bright in comparison to other amplifiers all the same.

The Icon Audio MB45S is typical of a well engineered large, low feedback valve amplifier, possessing a stable distortion pattern dominated by innocuous sounding second harmonic at normal listening levels. It should sound smooth, easy on the ear and powerful. 

VERDICT

Monoblock valve amplifiers with awesome dynamics and power. High drama, superb value, enough said!

ICON AUDIO MB45S £2,500/pair
Icon Audio
C +44 (0)116 2440593
www.iconaudio.co.uk

FOR
- deep, tight bass
- vast dynamic drive
- excitingly vivid
- drive any loudspeaker

AGAINST
- industrial style
- specialised technology
- large and bulky
Nothing added. Nothing subtracted.

Music is a reflection of life. A never-ending dance between your joys and sorrows, ups and downs and that all-consuming can’t-live-without-each-other love. Music is our reality.

Nothing added. Nothing subtracted.
There's nothing like a good budget bookshelf speaker to get your system singing on a reasonable budget. Noel Keywood auditions no less than nine of them...!

Heavens, these loudspeakers cost little more than a Camden Council parking fine - less with one model! Yet all are carefully designed, our extensive measurements revealed. This is a hard fought area of the market, where high performance comes at a low price. Quad's 1112s have plunged from £380 to £250 for example, just to remain competitive, and KEF have pitched in new IQ models recently, hotting things up further. So sizes are small and prices smaller, but fierce competition makes this part of the hi-fi market a turmoil. Here's a round up of small budget loudspeakers, old favourites and new entrants, to see where things stand.

I was almost shocked by the £130 price tag of Q Acoustics 1020i. Okay, they are small shelf mounters with a mini cabinet, something you could carry home under your arm one Saturday afternoon, but they perform absurdly well for the price. Designed by Karl Heinz Fink, his design skills and wide experience shine through, you are not getting a back alley cobble-up here. The key to low price is a set of decent drivers that don't cost the earth - and assembly in the Far East of course.

From the Q Acoustics 1020is, classified as 'shelf mounters', the loudspeakers in our group range upward to the sizeable B&W 685s and KEF IQ30s, both of which are best mounted on stands. The B&Ws are big enough to demand long arms if you want to carry them home. Unsurprisingly, they are also the most expensive at £380. Their direct rivals from KEF are the new IQ30s, dating to 2007 and the IQ30s to yesterday. Do they overwhelm old favourites like the Usher S-520s and Quad 1112s? The drastic price cut applied to the Quads suggests that their owners, International Audio Group, who also manufacture in China, are worried by these new arrivals. Should they be?

Below these higher priced stand mounters come a new breed of shelf mounters out to challenge the miniature 1020is, and also Wharfedale's ageing Diamond 9.1s, Mordaunt Short's Mezzo 1s are sized much like the Diamonds, although at £330 not priced like them. KEF pitch in their new IQ10s, which are again shelf mounters, priced at £250. Below both lie the keenly priced Monitor Audio BR2s. None challenge the Diamond 9.1s on price, but all three incorporate more recent technology.

Left: Reference system. The Monitor Audio BR2s. None challenge the Diamond 9.1s on price, but all three incorporate more recent technology.

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The Q Acoustics 1020i, Wharfedale Diamond 9.1, Monitor Audio BR2, Quad 1112, KEF IQ10, Usher S-520, Mordaunt Short Mezzo 1, KEF IQ30, B&W 685.

**The Contenders**

Q Acoustics 1020i £130
Wharfedale Diamond 9.1 £150
Monitor Audio BR2 £200
Quad 1112 £250
KEF IQ10 £250
Usher S-520 £320
Mordaunt Short Mezzo 1 £330
KEF IQ30 £350
B&W 685 £380

**Reference System**

Pioneer PLC-590/SME M2-10/Ortofon 2M Black turntable
Icon Audio PST.2 phono stage
Yamaha CD-S2000 CD/SACD player
Sugden A21a integrated amplifier
Anatek A50R integrated amplifier
Creek ODH-22 pre/Icon Audio 845 power amplifier
Sound Organisation speaker stands
ViVi Royal Jade cables
Q ACoustics 1020i

This is a very small bookshelf loudspeaker with a lot packed in. The tiny cabinet measures 250mm high, 175mm wide and just 265mm deep so it easily fits onto a standard 12in shelf, unlike most others in our group. Weighing just 4kgs getting it there is no sweat either! Encompassed by this tiny volume is a 125mm fibre cone bass unit, allied to a relatively large 25mm dome tweeter made from a polyester weave, and ferrofluid cooled for better power handling. The dome sits in a small recess which focusses forward output, improving sensitivity. I mention this because for its size the 1020i is extraordinarily sensitive, producing 87dB sound pressure level from one nominal watt. In any showroom A/B demo it will sound louder than most rivals and 40-60 Watt amplifiers should give plenty of volume. Twin ports are front mounted and bi-wire terminals are recessed into the rear panel.

SOUND QUALITY

The 1020is construct a wide sound stage with firm left and right images, although it lies between the loudspeakers rather than around them. Vocalists like Angeline Kidjo sounded intensely focused and detailed; backing vocalists were seemingly spolit, the 1020is picking out the finest nuances of expression and intonation. This intensity of imaging combined with strong detail retrieval was a delight, especially at the price. Better, the little 1020is kept vocals and instruments very well separated, making individual musical strands easily intelligible. It was an impressive performance by any standard and also one free from box colouration, in spite of the front mounted ports. Bass lines were fluid and expressive, but as you might expect lower bass is on the weak side. There is an audible lift to treble that adds some sting, so kick drum timed nicely in Dire Straits' 'So Far Away' but it lacked weight and rim shots hissed strongly. Mark Knopfler's vocals were as clear as a bell though, pushing out nicely from the mix, and the 1020is were better balanced and more insightful than most as a result, offering a delightful performance.

The treble unit has some impressive strengths, but it was a little strident at times and whilst I enjoyed listening to Nigel Kennedy playing 'Massenet's Meditation', his violin sounded a little thin and reedy. Nevertheless, it was a passable result for a £130 loudspeaker. Our Sugden A21a didn't help ameliorate this treble emphasis; the 1020is really need a NAD C315BEE or similar, possessing a warmer sound.

VERDICT

Clean and clear, with intense imaging, they're great at the price.

FOR
- intense imaging
- great clarity
- tuneful upper bass

AGAINST
- a trifle forward
- some sibilance
- little low bass

This is a good set of results for such a small loudspeaker. NK
WHARFEDALE DIAMOND 9.1

Wharfedale's Diamond 9.1 is getting on a bit now, but it still uses effective technology. Diamonds have, over their long history, provided top class results from bottom class prices and at £150 or so the Diamond 9.1 is hardly costly. Look closely and you will see the drive units are very similar to those used in the Quad 11L2, notably a 130mm woven Kevlar cone bass/midrange unit, allied to a 25mm soft fabric dome tweeter. As both are made in China by IAG, this is hardly surprising, as sharing parts reduces cost whilst maintaining quality. The Diamonds have smaller and less lavishly finished cabinets, albeit with resonance reducing curved side panels. The same twin ports are used, but placed on the front of the speaker to aid shelf mounting. The rear carries bi-wire terminals. Similar impedance curves are a dead giveaway of shared componentry, but subtle differences also exist showing the loudspeakers are not identical. Measuring 296mm high, 194mm wide and 278mm deep, the Diamond 9.1s weigh a normal 6kgs.

SOUND QUALITY

Although there are obvious similarities between the Diamond 9.1s and the Quad 11L2s, you would hardly think so listening to them. The Diamonds are very projective, and almost shout. This makes them sound lively, if at times a little hard edged and mechanical sounding. I was amused by their vivid stage images though, that were almost rudely loud. So as Amy Winehouse sang 'Me And Mr Jones' her backing vocalists seemed to be all but shouting their lines behind her; it brought a smile to my face, they sounded so brash and forceful! The Diamonds construct an intense sound stage; images have a hard etched but lively presence. They offer plenty of apparent insight yet at the same time real fine detail seemed missing, but then they are only £150!

The Diamonds lack the warmth of the Quads; in fact they are not warm anywhere, in any way at all. Nor do they have especially convincing bass, in terms of depth or tunefulness, although it was grippy. Nevertheless, close to a rear wall this is strengthened and it was decent at the price. The front ports add just a little boxiness to the sound, but it isn't severe by any means. Gabrielle's husky tones sounded somewhat anesthetised, but she was strongly projected all the same, making me very aware of lyrical content, if less of vocal intonation. The Diamond 9.1 is amusingly projective; it tries hard to entertain and has real strengths, if also some rough edges.

MEASURED PERFORMANCE

The Diamond 9.1 has a wide, flat frequency response with no undue treble peaking, so it is basically accurate. Bass extends to 40Hz before cutting off sharply, whereas the Quad's ports excited our room right down to 20Hz, third octave noise analysis shows. The Wharfedales will sound faster, but less weighty than the Quads. They share the same clean early decay spectrum too, a plus point. The Diamond's twin porting arrangement results in a smooth impedance curve and low measured impedance of 6 Ohms from a bass unit of 4 Ohms (DCR). Front mounted ports will communicate the box colouration peak - red in our analysis - at 1.3kHz. Its narrowness suggests there's little energy, so audibility may not be great.

The Diamond 9.1 has a good but not exceptional sensitivity of 85dB so it needs at least 40 Watts, but is an easy load.

VERDICT

Enthusiastic sound, but lacking sophistication and off today's pace.

Wharfedale Diamond 9.1 £150

FOR
- forward and engaging
- strong imaging
- uncoloured

AGAINST
- hard edged glare
- lacking fine detail
- mediocre bass quality
Monitor Audio’s Bronze range BR2s are beautifully finished for a £200 loudspeaker. They look as if they might cost twice as much. The veneer looks authentic and the metallic surrounds are smooth and slickly contoured. The 165mm bass driver has a silver finish Metal Matrix Polymer cone, refined by Finite Element Analysis, Monitor Audio say. Above it sits a 25mm bronze finish C-Cam (ceramic coated aluminum magnesium) tweeter. The cabinets are 350mm high, 185mm wide and 250mm deep, weighing 5.8kgs. They will fit a shelf, which the front ports facilitate, or a stand. The rear carries a set of gold plated bi-wire terminals that accept 4mm plugs.

Monitor claim 90dB sensitivity but no small loudspeaker manages this. Their vast Platinum 300 is rated (correctly) at 90dB and the BR2 could hardly equal it. We measured 86dB, much as expected for the cabinet size, meaning they will provide good volume with 40 Watts or more.

SOUND QUALITY
The BR2s have a crisp open sound that is characteristic of good metal cone drivers. It is an obvious character trait, one that makes most competitors sound a little challenged in terms of apparent clarity. Tracey Chapman’s voice was chiselled out centre stage in convincing fashion singing ‘Fast Car’, but she was brightly lit. This gentle enhancement sounded a trifle questionable with Renee Fleming singing ‘Madame Butterfly’, if it was perhaps more acceptable with Rock.

The BR2s image well, pushing well out of the box and into the room, in a nice arc over and beyond the loudspeakers. Only did port colouration, heard as box ‘boof’ serve to anchor it subjectively to the loudspeakers. A peculiar but not uncommon psycho-acoustic phenomenon that often affects front ported loudspeakers. Unfortunately, this raises the subject of bass quality and this was the one area where the BR2 struggled a little. Subjectively, it has well formed and rhythmic upper bass, but lower bass proved a little turgid, distortion measurement suggesting bass doubling as the cause. At the other end of the spectrum though the BR2 had open and sweet sounding treble that made cymbals, triangle hi-hats ring beautifully, and also added to the general air of open spaciousness the loudspeaker possesses in abundance and is, subjectively, a very strong card.

The BR2s well demonstrate Monitor Audio’s cone technology, having a sparkling clear sound that is at the same time easy on the ear. There are flaws, but at the price they are an impressive package all the same.

MEASURED PERFORMANCE
Frequency response of the BR2 undulates, suggesting colour, but it is basically flat, with a slight lowering of energy above 4kHz that will soften the sound slightly. There is a sharp peak above 16kHz but this will not be apparent unless music contains high energy here - rare. Bass output is smooth and well extended downward, especially by the broadly tuned port, which was +6dB up on forward output at 80Hz. Unfortunately, there’s a lot of box noise from the front ports, lying in a broad peak around 1kHz (red trace).

The BR2’s 10mS decay spectrum was very clean at high frequencies, but bass distortion (35% at 30Hz) was on the high side. Port noise stains the 200mS decay spectrum.

Sensitivity was good at 86dB from one nominal watt, impedance measuring 5.4 Ohms. The impedance curve is well controlled.
QUAD 11L2

Quad's 11L2 has enjoyed wide popularity, rare with loudspeakers. Perhaps it's because Quad have a 'sound', as well as a reputation to maintain and the 11L2 is a tightly focused design that meets its goals. Quads don't have emphasised treble, easing long term listening. Their underlying technology is finely honed. And then there's appearance - the 11L2 is beautifully finished with a deep piano gloss coating, giving it a lustrous shine. The cabinet weighs 6.3kgs, measures 310mm high, 190mm wide and 243mm deep, and feels very rigid. It houses a bass unit with a 125mm woven Kevlar cone and a stiff, reflection-free chassis, plus a fixed central phase plug. The tweeter is a 25mm soft dome type (i.e. fabric, not aluminium) with aluminium voice coil. Bi-wire terminals are fitted at rear, and twin ports are sited here too. Quad use Neodymium magnets for high sensitivity and claim 86dB from a true Watt; we measured a high 87dB from one nominal Watt, confirming their figure.

SOUND QUALITY

In this group the Quads stood out for many reasons. Their tonal balance was everything Quad are known for: smooth, not immediately challenging but quietly impressive. Indeed, the Quads initially sounded warm in balance, likely due to a suppressed 3kHz-10kHz region, but they are very detailed all the same and were able to deliver vocals with the almost the same degree of resolution and naturalness as the Ushers, devoid of their slight dryness. Indeed, vocals from the Quads were positively lush sounding, quite unlike most current loudspeakers. They have a lovely sense of stage depth and superb inner detailing that had me hooked on listening intently to all sorts material, even the relatively poorly balanced live performance from Within Temptation's 'Black Symphony' CDs.

Duffy's 'Rockferry' sounded gorgeously atmospheric and she was picked out strongly, centre stage, situated within an obvious studio acoustic - superb. Just as measurement suggested, there was deep bass of the subsonic variety to be heard, making bass sound weighty and large, yet it was tuneful too. Only the 11L2s managed deep bass in this group. At last the Class A Sugden could display its strengths, as it didn't have a forward sounding tweeter to provoke. The stereo stage was both wide and high, with well established images. Strings sounded smooth and even, if not lustrous as with the Mezzo Is. The Quads were a class act; they are smooth, sophisticated and, in every area, very effective - if obviously warm.

MEASURED PERFORMANCE

The Quad 11L2 differs subtly to the others by having more energy below 2kHz due to overall plateau lift relative to tweeter level from 2kHz to 20kHz. This will give it a less 'aggressive' balance than most rivals, even though there will be plenty of detail, especially so as output through the crossover region is well maintained. So the 11L2 is 'voiced' as you might expect from a Quad product. Response is smooth, broad and even, forward output extending down to 70Hz (-6dB), below which the broadly tuned twin rear ports take over. These extend bass below 40Hz. The spectral decay graph shows a lack of early hot spots, suggesting the 11L2s will sound clean and colouration free right across the audio band. Sensitivity was high at 87dB, aided by a 4 Ohm bass unit and an impedance curve that stays close to 4 Ohms at low frequencies where power is delivered, overall impedance measuring 5.7 Ohms. In every area the 11L2 measures very well. It has been carefully voiced to reflect the Quad sound. NK

FREQUENCY RESPONSE

IMPEDEANCE

VERDICT

A big easy sound with plenty of bass makes the 11L2 a cracking listen.

QUAD 11L2
International Audio Group
+44 (0)845 4580011
www.quad-hifi.co.uk

FOR
- easy sound balance
- smooth treble
- plentiful bass

AGAINST
- on the warm side
- slightly hard midband
- bass a trifle loose

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World Radio History www.hi-fiworld.co.uk JANUARY 2009 HI-FI WORLD 21
GROUP TEST

VERDICT

Thoroughly impressive small loudspeaker, exceptional at the price.

USHER S-520

The Usher S-520 is one of our long term favourites. It is distinguished by its clear polypropylene woofer, which has the same sort of smooth, well damped sound you get from Spendor loudspeakers. Like Spendor, Usher use a static phase plug, as do Quad, Wharfedale and B&W in this group, to disperse high frequencies from the bass/mid cone until the large 25mm soft dome (i.e. fabric) tweeter takes over. It does this at a low 1.5kHz our measurements show, improving drive unit integration and lessening audibility of break up modes, contributing to the 520's cohesive sound. The S-520 comes in handed pairs, the tweeter's inside position close to the baffle edge improving stereo imaging, whilst asymmetry reduces influence of surface waves. Ports are front mounted.

Measuring 300mm high, 180mm wide and 250mm deep the S-520 is sized to fit shelves or a stand. It weighs a normal 6.3kgs, feels sturdy and ours had a deep gloss black finish. Connection is via bi-wire terminals.

SOUND

Alison Goldfrapp's vocals were beautifully resolved, sounding a tad dry but with strong revelation of vocal intonations and textures. The Ushers similarly pulled Gerry Rafferty from 'The Ark' and highlighted his slightly nasal delivery and plaintive vocal style. The reason for the dryness of tone was that raised high frequency output is highlighted by the Sugden A21a, which is no shy flower in this area. But superb insight brought concise enunciation from Rafferty, as it did from Goldfrapp and other singers; the S-520s were a class act with vocals, even though sibilants were made a little obvious at times. Bass lines were in good balance with all else and here the Ushers sounded clean and tuneful. They can hold onto strong bass lines with a grip that is impressive. Like the iQ30s and 685s, bass goes low but not down to subterranean depths. The Ushers throw out a wide sound stage and project forward quite well too. They aren't a match for the B&Ws, but otherwise sound spacious and unfettered in their imaging, the 'handed' tweeters creating well etched images. These same tweeters also did a good job with cymbals and violins, bringing a strong sense of intense detail, although this is helped by their forward nature.

Superb vocal handling had me transfixed by Renee Fleming singing 'Madame Butterfly'. The S-520s are pure class with material like this, their unaffected naturalness resolving Fleming's wonderful steadiness of tone and strength of delivery. The Ushers draw you in and delight with their fine range of strengths.

MEASURED PERFORMANCE

Usher S-520 frequency response lifts at 800Hz and continues on and up smoothly to 6kHz, where it lifts again to plateau up to 20kHz. This will give 'obvious' treble and strong midrange detailing. Bass extends down to 50Hz, supported by a port +6dB up at 80Hz relative to forward output, and that works down 46Hz. Below this frequency output plummets, so they will sound fast and punchy. The drive units give unusually smooth output and the early decay spectrum reflects this across the critical midband, where the S-520s are very 'clean'. Sensitivity of 84dB is low against recent designs, and a minimum of a 60 Watt amplifier is needed for decent volume, partly because of an unusually high measured impedance of 9 Ohms. The Usher S-520s need more power than rivals, but they have an unusually smooth response, free from undulations, that suggests good drivers of low colouration. NK

FREQUENCY RESPONSE

IMPEDANCE

MEASUREMENTS
Mordaunt Short Mezzo 1

The Mezzo 1 is a shelf unit that uses Mordaunt Short's aluminium drive units, the 133mm bass driver using a shallow inverted cone for light weight coupled with stiffness, a shape Monitor Audio also favour. Standing 300mm high, 204mm wide and 255mm deep the Mezzo 1 is compact and of normal weight at 6.2kgs. Unlike all the other loudspeakers though, except the Quads, the Mezzos have a rear mounted port that will need at least a few cms of rear breathing space. The upside of this is that box noise from the port will be lost backward, lessening colouration. Curiously, the larger Mezzo 2s have a front port.

The bass unit is accompanied by an aluminium dome tweeter with a complex assembly to dissipate rear energy and prevent standing waves. Bi-wiring is provided, via sturdy rear terminals.

Sound Quality
A silky smooth and deliciously creamy sounding tweeter distinguishes the Mezzo 1. This was the only loudspeaker of the group through which strings sounded gorgeous. Nigel Kennedy's vigorous bow work sailed forth from the Mezzo 1s to both delight and captivate me, something that only the Quad's could otherwise approach. but not match. The Mezzo 1s have a lot of projection, pushing Kennedy's violin out into the room and off their stands, so energetic they sounded. However, this also revealed that although they go amusingly low for a small box, bass quality is soft and murky - one weak area.

Stereo staging was open and spacious, with images that reached upward into a nice high arc between the loudspeakers. The tweeter is so smooth and clear I also found myself able to turn volume up without having to cringe. Mordaunt Short voice their loudspeakers to be easy on the ear but vigorous and spacious too. There's a slight warmth to them, but their sheer entertainment value is great.

Measured Performance
The Mezzo 1's frequency response isn't as smooth as some in the group, but it maintains an even overall trend across the audio band. Free from undue high frequency peaking; if anything the Mezzo 1 is likely to have a little warmth, because upper midband energy is a little down. The midband and lower midband are smooth though important. Bass rolls off a little early, an over damped response usually chosen for near-wall placement. The port, however, provides broad output, has broad damping and extends bass down to 40Hz.

Measuring 6 Ohms impedance, the Mezzo 1 is a very civilised load that amplifiers will drive without difficulty. A high 86dB sensitivity makes around 40 Watts a suitable minimum for good volume. Short and long term spectral decays showed no particular problems, but bass distortion was high.

The Mezzo 1 is for use near a rear wall. It should sound fast and clean, well balanced and quite easy on the ear, measuring well in most areas. NK

Verdict
Silky mid and treble make these loudspeakers unusually distinctive.

Mordaunt Short
Mezzo 1
£330
Mordaunt Short
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KEF iQ30

A part of KEF’s new iQ range, the 6.7kg iQ30 is described as a shelf mounter, but at 327mm deep (13in) it barely fits a 12in shelf; like B&W’s 685 it really needs stands. Measuring 386mm high and 220mm wide it is of similar dimensions to the B&W, occupying the same market slot, that of a small loudspeaker with a big sound. KEF fit a 165mm cone version of their unique Uni-Q drive unit, where the tweeter fires from the centre of the bass unit cone. This arrangement gives even dispersion and both focused and consistent imaging, regardless of listener position.

Helping disperse treble is a Tangerine waveguide, but measurement showed the iQ30 still sounds smoothest off-axis, and a little bright on-axis. This may well be to match the 685s on-axis sound. However, the iQ30 is even more sensitive so will sound louder in an NB demo. Offering a claimed 89dB from one nominal watt, even a 40 Watt amplifier will sound loud with this speaker.

SOUND QUALITY

Listening to the KEF iQ30s after the B&W 685s showed that although apparently similar they are different as chalk and cheese. The iQ30s image in the plane of the loudspeakers, and between them. They sound less expansive, but more dense and solid in image quality, and highly focused. Spinning Gerry Rafferty’s ‘The Ark’ underlined good midband clarity, a trace of boxiness heard as small ‘boof’ issuing from the port and well balanced bass. However, the new treble unit sounds steely even well off-axis and this brought and obvious ‘shhh’ to cymbals on Duffy’s ‘Warwick Avenue’ on both CD and LP. The new tweeter remains both hard and intrusive, robbing brass of its characteristic sonority and this both dominated and diminished the timbral resolution of the iQ30s. So with the Eagles ‘Somebody’ both ‘shoulder’ and ‘icy’ had a lacerative sibilant edge and the balance was too tilted toward highs, even though I was listening far off axis. This made listening to old, less clean recordings quite difficult at times as they could sound harsh. As I noted with the B&W 685 review our Sugden A21a amplifier exacerbated the effect; the iQ30s need a softer delivery from a Naim Nait or NAD C315BEE I suspect. All the same, the iQ30s were quite obviously clear and detailed, apparently fast with transients and had clean, tuneful bass. Unfortunately their balance was challenging with classical strings, although horns blared strongly in Wagnerian climaxes and kettle drums were suitably weighty, if not thunderously deep.

MEASURED PERFORMANCE

Frequency response of the iQ30 gets ragged and peaks at high frequencies, on-axis. Off axis by around 30 degrees it smooths considerably, our analysis shows. Bass reaches down to 50Hz, port output at 48Hz ensuring there’s little below this frequency. Third octave analysis shows that, off axis as intended the iQ30 measures flat and wide. It is very accurate, but there’s a little emphasis around 200Hz to add body to the sound. Strong port output around 700Hz may be audible as colouration. Sensitivity was highest of the group at 88.5dB from one Watt, helped by a lowish measured impedance of 5.4 Ohms, with minimum of 4 Ohms. The load is fairly reactive, which affects amplifiers. Spectral decay revealed no problems and distortion was low.

The iQ30 measures well all round. It is very accurate, wideband and sensitive. NK

VERDICT

Small loudspeaker with a big sound, marred by monotony.

KEF iQ30

£350

KEF

0 +44 (0) 1622 672261

www2.kea.com/uk

FOR

- clean, solid bass
- tonally wide and even
- superb imaging

AGAINST

- hard edged vocals
- steely treble
- occasionally sibilant
Sound that only Angels could hear...

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Distributed by SCV London: benchmark@scvlondon.co.uk
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B&W 685

One of the larger loudspeakers in our group, measuring 340mm high, 198mm wide and 335mm deep, these barely fit a standard 12in shelf and are best seen as stand mounters. Box volume correlates to deeper bass, so what is a drawback physically isn't sonically. At 7kgs they are not too heavy.

The 685 is a two-way design with shiny aluminium dome tweeter and eye-catching yellow woven Kevlar 165mm woofer. B&W talk of "first order crossover slopes" and special components for sonic zest. Supporting this, the 685s are very efficient; they are louder than all rivals at any particular volume setting except the new KEF iQ30s. So in a showroom demo, the 685s will usually be loudest and seemingly have most impact. It isn't artifice though; these loudspeakers are truly efficient, and efficient loudspeakers do have a get up and go demeanour. All the same, B&W enhance their liveliness by raising tweeter output so treble cuts through.

Well built and finished, the 685s feel good and look good. Bi-wire terminals are fitted and foam bungs for the ports supplied to damp down bass, useful when wall or shelf mounting.

SOUND QUALITY
The 685 scores immediately with a lovely open sound seemingly unconstrained by the boxes. The sound stage was projected well forward of the loudspeakers, placing vocalists close, and it extended well beyond the loudspeakers, a product I suspect of good drive units and slow crossover slopes, as there was a curious almost phasey quality that cut earthly anchors for an ethereal sound.

Bass was nicely balanced, reasonably tuneful and convincing, if with a soft air to it. Synthesised hand claps in Goldfrapp's 'Lovely To See You' were sharply defined in the time domain and hovered in space. Alison Goldfrapp's voice was clear and uncoloured, but there was a lightness of timbre. Unfortunately, the tweeter was always obvious and could make mediocre recordings like 'Within Temptation Live' sound messy and a little harsh; others did better here. All in all though, the 685s sound generously open and clear, image outside usual limits and thoroughly impress with their expansive and projective sound. Their treble lift didn't suit our Sugden A21a and they really need a warmer amplifier like a Naim Nait or NAD C315BEE to rein back treble and knit it into the musical whole.

MEASURED PERFORMANCE
Frequency response of the 685 undulates, but third-octave analysis shows it is wide and even along the 0dB datum, so tonal balance is accurate, except at high frequencies where the tweeter is +2.5dB up. Crossover phase relationships are peculiar due to the slow roll offs used, causing a dip at crossover - at 6kHz in our graph - that varies with listening position. The big cabinet gives deep bass, with strong output to 50Hz, but output falls quickly below the 45Hz port frequency.

Spectral decay plot shows the 685 to be clean, but bass distortion was high. It is massively sensitive at 88dB from one nominal watt (2.8V) even with a high measured impedance of 7.1 Ohms. It is very reactive, our impedance analysis shows, making amplifier choice critical.

The 685 will have a zing from its tweeter, but otherwise it is accurate and well engineered in all areas, if not as a load. NK

VERDICT
Expansive sound, lively and clear, if lacking image focus and bass grip.

FOR
- expansive sound stage
- good with Rock & Classical
- open and uncoloured

AGAINST
- weak image focus
- temporally vague bass
- bright treble

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An editor once said to me, "Stop equivocating. You've got one to walk away with. Which is it?" I resolved the issue in this group using a final shootout. In the end the reference Usher S-520s are the loudspeakers I would walk away with...

Let me explain the decision to you, because it wasn't a clear cut situation; here is the equivocation! If you crave bass there was one choice: KEF IQ30s. Technically impressive, they do everything right except one. Vocals have a metallic edge, a colour that I found disconcerting. They cruised confidently into the messily recorded live Within Temptation 'Black Symphony' concert CD but when Sharon den Adel started singing her voice was monotonic. The same applied to Renee Fleming singing 'Madame Butterfly'. As much as I enjoyed their fantastic bass, superb imaging and generally adept delivery, the IQ30's tonal palette was disappointingly restricted. B&W's 685s had no such problem. They have a nice light air about them and could timbrally resolve vocalists well, from the trilled highs of Sharon den Adel to Jackie Leven's deep Celtic drawl. But they lacked focus and I couldn't quite place Renee Fleming, her voice drifting in from the ether, it seemed. All the same, the 685s were generously dynamic, had good if slightly soft bass and plenty of airy treble. They were an easy yet rewarding loudspeaker to listen to, able to resolve the individual character of sax, guitar and strings in Gerry Rafferty's 'Baker Street', instead of homogenising them. But their vagueness damped my enthusiasm.

Usher's S-520s lacked the perceived bandwidth of both, mainly because they don't go so low, and their treble is too prominent, yet at the same time they offer good image focus and superb vocal reproduction. Add in tight, tuneful bass with a fine dynamic to it, and you have an imperfect gem. The Ushers resolved both vocals and instruments into a smooth and thoroughly believable reality. Their rich textures were revealed, without any modifying overlay.

Mordaunt Short's Mezzo Is were intriguingly different from the norm and very attractive in so many ways, having a silky smooth midband and treble that was very easy on my ear with all types of music. However, they also had a warmth and lack of openness that was a small concern. If you demand smoothness and sophistication over all else, especially classical strings, then the Mezzo Is could well be a first choice.

At £200 Monitor Audio's BR2s were lively and engaging, if flawed. Great value rockers though and nice with classical too.

Quad's I1L2s sit alongside the Mezzos in sounding warm but smooth in this group. They have more bass weight than the Mezzos but a harder tonality. All the same, the Quads played a strong hand and are fine for Classical and Rock alike.

Q Acoustics I020is are number one at their price point, an absurdly good loudspeaker for £130. I enjoyed their ability to separate instruments and vocalists to produce an enormously tidy sound stage. In use KEF's similarly sized iQ10 just outgun the I020is and I enjoyed them, but they cost twice as much. If small size is more important than price, as it might be if you have a small listening room, then these minis do benefit from KEF's engineering expertise, with tuneful bass that underpins the music nicely.

Wharfedale's Diamond 9.1s are willing performers that provide a tidy and engaging sound. They do nothing badly but have quite a hard tonality. At their low price though, the Diamonds are still a good package, more exciting than sophisticated.

**IN THE ROOM**

Small loudspeakers are designed to suit small rooms up to about 14ft longest dimension. For deepest bass they should be sited at one end of the longest dimension, close to the rear wall, with listeners at the other end. If placed on stands they can then be moved forward away from the wall to improve imaging and smooth the lower midrange, according to preference.

Shelf mounting isn't ideal, because of interference from rear wall reflections. Books either side of the cabinets help break these up. Stands should be heavy and inert. Often they have hollow tubes best filled with a dead steel filler, less messy to handle than the other choice, sand.

Modern loudspeakers commonly have emphasized treble. It may sound impressive in a showroom demo, especially when a clean sounding demo CD is used, but it may well sound tiresome at home. Take some of your less well recorded CDs in for a shop demo and ensure you are able to enjoy them. Few solid-state amplifiers ameliorate this problem, except NADs and Naims. The budget NAD C315BEE is a great choice, known for its smooth treble.
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the same, the performances here
very unusual musical package. All
at www.2L.no. I am not a music
tape, so I'm uncertain it properly
and Me', but it is a transcription from
Would 24/192 code sound much
much as taking a detailed look at a
system in certain critical areas.
I've been hankering after the
disc for some time, to confirm
whether earlier impressions of
24/192 digital were accurate. So
when I saw Divertimenti from
TrondheimSolistene recently, on a
vendor's stall at a Taiwanese hi-fi
show, I grabbed it. You'll likely not
find it at your local HiFiV, but you can
order it from internet sources like
www.elusivedisc.com, at a cost of
$40, which converts to around £26.

Blu-ray has been specified to
deliver audio quality way better
than CD or DVD, but until this
disc appeared music at the highest
resolution has been unavailable on
it. The Chris Botti concert Blu-ray
is recorded in 24/96 PCM code and
is impressively concise in its sound.
Would 24/192 code sound much
better I wondered? A 24/192 Doobie
Brothers DVD-A exists, 'The Captain
and Me', but it is a transcription from
a thirty year old analogue master
tape, so I'm uncertain it properly
represents 24/192 digital.

A detailed track listing of
Divertimenti and explanation of
its musical content is available
at www.2L.no. I am not a music
reviewer, nor any form of expert
so am not passing judgement so
much as taking a detailed look at a
very unusual musical package. All
the same, the performances here
are crisply played and obviously
from a talented and well
rehearsed ensemble.

The effort put into
recording and presenting
their work is something of
an audiophile's
dream. There are in
fact two discs: one is
an SACD with CD
layer for CD players,
the SACD content
being in surround-
sound and stereo,
both DSD code.
The second disc
is a Blu-ray with
no fewer than
four different
codings of the music: DTS HD
Master Audio 24/192, Dolby TrueHD
24/192, Dolby digital surround-sound
as found on DVD, and finally 24/192
PCM surround-sound, plus a stereo
downmix. Why all these code formats
I do not know, because all receivers
handle PCM and both DTS HD
Master Audio and Dolby TrueHD are
just packed versions of PCM that
occupy less disc space, so they should
sound much the same. Curiously, I
found they didn't and this is where
got interesting - or confusing!

What struck me most about
the Doobie Brothers transcription
was a sense of intense fine detailing
within the sound. Spinning LPCM
(Linear Pulse Code Modulation, or
basic digital code) from the Blu-ray
first, I was encouraged to find the
same properties; bowed
strings were intensely
detailed giving them a
vivid presence. Transients
were startlingly fast and
dynamics breathtaking.
So 24/192 digital code
give us better sound
quality, but I had slight
reservations: the sound
was very dry.

To make specific
comparisons between
the digital formats I span
Track 2, Playful Pizzicato,
in its many guises,
through a Marantz
SR8002 receiver which is
capable to decode DTS
HD Master Audio and
Dolby TrueHD, as well
as handle PCM at 24/192 on all
channels, as well as decode DSD
from SACD. A Samsung BD-P1500
span the Blu-ray and an Oppo DV-980H
the SACD, both connected
by Monster HDMI cables. Since the
Marantz converts DSD to PCM, I
also used a Yamaha CD-S2000 SACD
player.

After a few runs to orientate
- the disc has a dreadful navigation
scheme, and I had to gather initial
impressions and then check them
- it became apparent that LPCM
possessed incredible amounts of fine
detail and was clearly superior in this
respect to DTS HD Master Audio,
Dolby TrueHD and Dolby Digital, as
you might expect. I was concerned
that both DTS HD Master Audio and
Dolby TrueHD slightly softened and
homogenised strummed and plucked
strings, and that Dolby Digital didn't
sound much worse - when it should
have been far worse! However, much
of this could be attributable to either
the recording equipment or the
SR8002 receiver. The bottom line is
that LPCM, or basic digital code, was
best, as expected.

And SACD? Differences were
disconcerting. SACD had superior
midband and lower midband
resolution; I heard further into the
noise floor, was better aware of hall
atmosphere and found the decays of
strummed and plucked strings were
better described in their textural
richness and range, making music
sound less dry and analytical, as it
was with LPCM, and more euphonic.
Unsurprisingly, I realised this was
a typical SACD, easy on the ear, natural
and convincing, yet impressive in
quality terms. High treble didn't
have the fine differentiation that
24/192 LPCM displayed and this may
sway many listeners to prefer it; I
preferred SACD.

I think we will all find 24/192
LPCM on Blu-ray pretty impressive.
I wouldn't rate it above the DSD
code of SACD, a Blu-ray option no
less, but it's unlikely studios will
want to continue with DSD, or that
Sony will support it, so this is likely
a pipe dream. All the same, on the
basis of what I heard from this disc I
look forward to hearing high quality
24/192 digital recordings on Blu-ray
in the near future. NK
Only through hearing will you truly believe.
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Christmas is coming and it's time to buy yourself that gadget you always wanted. With this in mind, Steve Green rounded up three of the latest and greatest digital music portables — go on, treat yourself!

COWON IAUDIO 7
This is made by Korean MP3 specialists Cowon, whose D2 model provided the best audio quality in a previous MP3 player group test some issues ago, so I was interested to see whether the iAudio 7 could replicate that performance here. The only reason the Cowon D2 didn't win the previous group test was that its touchscreen user interface was so poor it made the player very fiddly. And Cowon has again employed touch-based controls on the front of the iAudio 7, combined with normal buttons on the top, but this time the touch controls were thankfully much easier to use once I'd got a feel for them.

The iAudio 7 was the smallest player of the group in terms of both height and width (76x36 mm), but its 19 mm depth made it the thickest player of the group. Its narrow width also led to it having the smallest screen, which measured just 1.3" along the diagonal. Text was still easy to read though, due to the high contrast white text on black background, along with the screen having a high pixel density (160x124 pixels). This also led to the picture being sharp when displaying video and photos, although I'd recommend buying a player with a larger screen if you plan to watch a lot of videos on an MP3 player.

The Cowon supported a wide range of audio formats, including MP3, Ogg, WMA, WMA Protected and WAV, plus the popular FLAC lossless format. The iAudio 7 offered limited support for other media types though, as it only supported JPEG photos and Xvid video — Cowon provided its JetAudio software on CD to convert files from other video formats to Xvid.

Cowon claims that the iAudio 7 provides a massive 60 hours of battery life when playing audio, which is over twice what the Apple iPod nano provides, and it puts the iRiver's 12 hours to shame. The Cowon also provided a surprisingly good FM tuner. The tuner wasn't particularly sensitive, but on stations with a stronger signal it sounded very fine indeed. In addition, the Cowon provided a line-in socket; recording from voice, line-in or from FM; scheduled recordings; an alarm/clock; plus text file viewing. The Cowon supports the Windows, Mac and Linux operating systems.

Sound quality on the Cowon was superb, and overall it was a lot better than on the other two players. The main difference was that the Cowon simply delivered a significantly more precise and vibrant sound across all types of music. The audio was delivered with more bite, which gave the sound better definition, and this gave the Cowon the edge over the other two players when playing less demanding material, which the other players also delivered well. But it was when playing more demanding material – such as aggressive sections of indie tracks – where the Cowon performed much better than the other two players, as its greater precision provided good levels of detail and plenty of energy, whereas the other players sounded rather woolly in comparison.

APPLE IPOD NANO 4G
This is the fourth generation (4G) of the best-selling MP3 device, which was first launched in September 2005. The biggest change to the new nano is that Apple has decided to revert back from the short and squat design used on the 3G nano to the tall and thin design that was used on the first two generations of the device. The new nano is also the thinnest model yet, measuring a decidedly anorexic 6.1 mm.

Despite the body now being narrower, the display is the same 2" diagonal 320x240 pixel screen that was used on the 3G nano, but the screen has been rotated so that it's now positioned lengthways. An advantage of this change is that more rows of song information can be displayed at once, or alternatively the font-size of text can be increased.

Another result of the change is that video is now watched while holding the player on its side. Apple has also added an accelerometer – as used on the iPhone and iTouch – to sense which way up the device is facing, so for example if you flip the nano from one side to the other whilst watching video or viewing photos, the pictures will switch too. Similarly, if the player is turned on its side when listening to music, the 'CoverFlow' feature springs into life, which allows you to scroll through album art covers rather than having to navigate through text-based menus to find what to listen to next.

Another significant change is that the memory sizes have doubled to 8 and 16 GB, but the prices don't look to have gone up, so the new version is now significantly better value-for-money. The number of colours that the nano is available in has also been expanded to nine.

The remaining significant new feature is an automated playlist generator called 'Genius'. This works by the iTunes software uploading details of your music library to the iTunes music store, and Genius then
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- they are supplied in a hard carrying case, with an adjustable cable and an additional extension cable, a clothing clip, an AAA battery and an airline adapter for in-flight entertainment systems.

- they normally retail at £69.95, and are part of an excellent range of Audio Technica phones ranging from iPod types to full size hi-fi designs.

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works out a playlist of songs that it thinks will go well together – similar to how personalised radio stations work, such as last.fm. Personally, I found some of the recommendations to be rather odd, and Apple gathering information about our music libraries seems too much like a Tesco Clubcard for the music downloads business for my liking...

The user-interface was visually stunning and exceptionally easy to use. Text was gorgeously rendered, and album artwork was integrated to excellent effect to make the interface look even more attractive than it already was. The picture quality when displaying video, photos or album art was also excellent.

In terms of media formats, the nano supports AAC, Protected AAC, MP3, Apple Lossless, AIFF, WAV and the audible audio formats, plus the iTunes playlist format. On video, the nano supports the H.264 Baseline Profile and the MPEG-4 SP (Simple Profile); and it can display JPEG, GIF, PNG and Bitmap image formats. Apple quotes the battery life as being 24 hours for audio and 4 hours for video. The nano also comes with a few added extras, such as alarms, games and a stopwatch. A black mark against the nano though, is that Apple still hasn’t added an FM tuner yet. And, unsurprisingly, the nano still doesn’t support the Linux operating system.

Sound quality on the 4G nano was slightly better than the 3G version, but still rather lacking, and the nano performed the worst of the three players here. It was good when playing less complex material, as the sound was clean and detailed, albeit a little on the thin side. However, as soon as the audio became more complex, it quickly lost a lot of its definition, and when playing highly demanding material – such as tracks with loud electric guitars – the sound often descended into a muddled, metallic-sounding, ill-defined mess. It’s a great shame that the Sonics so badly let down this otherwise exceptional product.

**IRIVER L-PLAYER**

From another Korean MP3 player specialist, the L-Player is the cheapest of three players in this review, with the 8 GB model costing just £79. The shape (60 x43x13mm) was in-between that of the tall and thin nano and the short and squat Cowon. An interesting feature of the L-Player’s design was that the screen itself acts as the direction buttons that are used for navigation. The screen is mounted on a four-way rocker switch; so pressing the up, down, left or right edges of the screen will take you in that direction when navigating through the lists and menus. The advantage of eliminating the direction buttons is that the screen size can be larger than it would otherwise be, but the downside is that it requires two hands to control the player rather than just one. Navigation on the L-Player was very intuitive though, as its menu structure was similar to the iPod’s. But the design of the L-Player’s user-interface was uninspiring in comparison to the nano’s highly attractive design.

The L-Player provided the widest format support out of all of the players, as it could play MP3, Ogg, WMA, WMA Protected, ASF, WAV and FLAC audio formats; MPEG-4 SP (Simple Profile), WMV9 SP and Xvid SP video formats; and it could display JPEG, GIF, PNG and BMP photos as well. The picture quality on video and photos on the L-Player’s 2” QVGA (320x240 pixel) screen was good, although it wasn’t quite as good as on the nano, and whereas the nano expanded the picture to fill the screen, the L-Player sometimes played video that was literally the size of a postage stamp. The supplied software to convert video files to formats supported by the player wasn’t very stable, either. The 12-hour battery life when playing audio and 3.5 hours for video was very poor in comparison to the other players. The L-Player sported an FM tuner, but the reception and sound quality were also much poorer than FM on the Cowon. Additional features provided included the ability to record FM or voice, and it could display text files. The L-Player supports the Windows, Mac and Linux operating systems.

The sound quality was very good overall, although it was still no match for the Cowon. The L-Player was impressive when playing less demanding material, such as on slower tracks, or when few instruments were playing simultaneously, as the L-Player delivered such material with good levels of precision and detail. The iRiver became a bit unstuck when playing more demanding material, though, as it lacked the Cowon’s bite, so the definition was a little lacking in comparison.

The L-Player sounded significantly better than the nano overall, though. On less complex material the L-Player provided a more convincing and fuller bodied rendition than the thinner sound provided by the nano. The L-Player was also more composed when playing the most challenging material, because the worst that could be said was that it sounded woolly, whereas the nano sometimes simply gave up the ghost and the audio turned to mush.

**CONCLUSION**

Judging the players on what they deliver overall rather than just on the sound quality alone, I would put the IRIVER L-Player in last place. Although it provided better sound quality than the iPod nano, the user-interface was bland and uninspiring. I wasn’t keen on the fact that you had to use both hands when controlling the device either, and the 2-hour battery life when playing audio is frankly poor by today’s standards. That said, at just £79 for an 8 GB player offering good sound quality, the L-Player represents good value-for-money.

Next up is the iPod nano. In my opinion, audio quality should trump the quality of a user-interface, but the iPod nano’s user-interface is that rare exception to the rule, because its user-interface is so good that it makes the product a joy to use, and it was in a different league altogether to the L-Player’s rather boring interface. The nano also handled video and photos better than the L-Player, and the addition of the accelerometer is another nice touch that sets the nano apart in terms of usability. The best MP3 player of the bunch though, was the Cowon iAudio 7. It wasn’t as easy to use as the iPod, its user-interface wasn’t as good, either, and it didn’t have the nano’s sleek looks. But it simply delivered a sound that was so much more engaging to listen to that you can easily excuse its slight shortcomings in other areas.
Video Star

Noel Keywood finds that Yamaha's new BD-S2900 Blu ray player paints a pretty picture...

Manufacturers are stumbling over themselves to get Blu-ray players out now the format war is over and Yamaha are the latest, with this their first machine, the BD-S2900. Denon and NAD are hot on their heels, press releases sitting in my Inbox tell me, and Swedish Oppo are about to launch a player they tell us, so there's plenty of competition - and that's not taking into account Samsung's excellent BD-P1500 priced at just £230 that I reviewed in our September 08 issue. By way of contrast Yamaha's new BD-P2900 is on offer at £699, so it is a premium product in an expanding and competitive market place. Can it justify its position I wondered?

The Yamaha can decode all digital audio formats, including DTS-HD Master Audio, the most processor intensive of the lot. It also copes with Dolby TrueHD and Dolby Digital Plus, an upgraded version of Dolby Digital surround-sound, a heavily compressed format. All these can be output in native form ('Bitstream') so the receiver can decode them, or converted internally to PCM and then output, for older receivers unable to decode. So the Yamaha is flexible in this area, able to operate as a transport in effect. It doesn't handle SACDs nor DVD-A's, but then neither do current rivals.

Like all Blu-ray players, it plays both CDs and DVDs, in addition to Blu-ray discs, upsampling cooking video from DVDs up to 1080p high definition via the HDMI link. Whilst in theory this cannot improve picture quality, in practice it certainly produces a pleasing result; at present the Blu-ray high def version isn't always convincingly better, I find.

For those without an HDMI input on their receiver, the Yamaha decodes all audio formats to the analogue outputs and 96kHz PCM is fully decoded to give the 48kHz bandwidth expected, our measurements showed, not downsampled internally as on Sony players for example. However, I wasn't surprised to find that the BD-S2900 cannot support 24bit linearity through these outputs, its internal convertors just aren't good enough. It doesn't even match good CD players when converting 16bit to analogue from CD so I am afraid to say the premium price doesn't give any better result if the BD-S2900 is to be connected up via its analogue outputs, used as a CD, DVD and Blu-ray player.

Like all the Blu-ray players I have measured to date, the analogue outputs exist solely to provide compatibility with legacy receivers. Manufacturers expect connection to be made via HDMI, transferring responsibility for sound quality to the receiver. So this is not a high quality stand alone player and, indeed, as it had a little more jitter on its SPDIF digital outputs, optical and electrical, than the very low jitter Samsungs it isn't the best choice for this type of use either. I don't want to make too much out of this because by absolute standards jitter was low and sound quality from CD quite warm and easy on the ear, I found.

Yamaha provide phono socket analogue audio outputs on the rear for 5.1 channel surround-sound, a two channel stereo mix down output and digital audio outputs, as well the HDMI digital cable that handles both audio and video, to the 1.3a standard. The player decodes both Dolby TrueHD and DTS HD Master Audio to its rear analogue outputs, so you get full surround-sound cannon fire from 'Master and Commander, The Far Side of the World' for example which, like most Fox titles, is coded in DTS HD Master Audio. I also played all Dolby codings including TrueHD and found the analogue outputs...
provide proper surround-sound. As I said earlier, talk of gaining the full benefit of high resolution audio via these sockets is spurious because they can’t really support it on any machine, as well as this one, in spite of its price.

Although I usually use native Bitstream output via HDMI to a Marantz SR8002 receiver, I checked the BD-S2900 to decode all formats to PCM internally and sent it via HDMI so it could be used with older receivers - and it was fine. However, I hit a surprising limitation whilst running these checks. Set to output either Bitstream or PCM internally, secondary video off, I could not get the player to output 24/192 PCM surround-sound from a recently acquired Blu-ray music disc, 'Divertimenti' played by TrondheimSolistene. Curiously, it would play both Dolby TrueHD and DTS HD Master Audio codings of the music, and it would also play a 24/192 PCM Stereo version, leaving me to assume the BD-S2900 can’t handle the prodigious data rate of 24/192 PCM surround-sound audio.

This isn’t going to be an obvious limitation at present, and certainly not with films where I suspect 24/96 sound track will be as good as it gets for some years to come. However, music Blu-rays are beginning to appear and use of 24/192 code may become a popular marketing tool for them. If this happens then the BD-S2900 will be unable to cope. As a Samsung BD-P1500 had no problem playing this high rate PCM I’m afraid to say that this price tag suggests deep sophistication and that core performance isn’t achieved. Whilst core performance is good, peripherally there are problems unacceptable at the price. So, the BD-S2900 is a nice player that does much well and wouldn’t upset most buyers, but it isn’t quite the all round cracker I would have hoped.

MEASURED PERFORMANCE

| Frequency response measured flat from 2Hz up to 20.8kHz (-1dB) from CD via the analogue outputs, the upper limit extending to 48.2kHz with 96kHz sample rate material our analysis shows, which is a good result. The player fully exploits high resolution bandwidth through its analogue outputs, for those that will use them. Distortion levels were not especially low by 16bit CD standards and no better with 24bit material, where there should have been an improvement. EIAJ dynamic range was low at 107dB. Manufacturers expect Blu-ray players to be connected to a receiver via HDMI link, in which case receiver performance determines distortion. The digital output was quite low in jitter, hitting 60pS with a -60dB 1kHz tone, and with a 10pS noise floor. Internal clocking is effective. The Yamaha's internal conversion processes are of reasonable quality, delivering a decent audio signal to the analogue outputs. NK.

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<tr>
<th>Frequency response (-1dB)</th>
<th>CD (44.1kHz)</th>
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<th>Distortion (%)</th>
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CONCLUSION

This characterises the BD-S2900. It does many things very well, superb picture quality being most obvious, but is a little ragged around the edges in some respects. The trouble is, the price tag suggests deep sophistication and I’m afraid to say that this price promise isn’t achieved. Whilst core performance is good, peripherally there are problems unacceptable at the price. So, the BD-S2900 is a nice player that does much well and wouldn’t upset most buyers, but it isn’t quite the all round cracker I would have hoped.
When Linn told us they were releasing the DS line of products we were sceptical to say the least. We were wrong.

We took delivery of our Linn Majik DS demonstration model on the 16th of June 2008. We took our time, listened carefully before jumping to any conclusions.

We can honestly say we have never been so constantly amazed at the quality of music coming from such an affordable product. We think this component will beat any CD player.

Simply ripping our CD's, listening to the radio, or downloading "higher than CD quality" 24bit music, is just so easy. We find ourselves listening to albums we've never bothered to play in years.

We love music, we own thousands of CD's, but I now know We will never buy another CD Player.

If you also love music, you owe it to yourself to experience this wonderful product. Please call in to Peter Tyson or Newcastle HIFI.
Adam Smith takes a bite out of Roksan’s brand new Kandy K2 integrated amplifier...

Sweet Truth

I can only think there’s something in the water around Middlesex way at the moment, as the team at Roksan seem to be on a bit of a roll. No sooner had the dust from their premium Platinum series amplifiers settled than the Xerxes 20 was Plus’d and now the highly capable Kandy LIII amplifier and CD player have been replaced by the new Kandy K2 items – this is clearly a company on a mission! The Platinum amplifiers were a logical step, taking the well proven technology from the Caspian series and augmenting it further, as was the upgrading of the Xerxes to incorporate ideas from the flagship TMS turntable, but these new Kandy items are far more than just a bit of a makeover, and gave me quite a surprise when I saw them unveiled at the Heathrow Show in September...

Cast your mind back for a moment, to when Volvo announced the C70 coupe. Here was a company known for safe, solid, reliable but rather square and frumpy cars, suddenly introducing something sleek and shapely, and this was exactly the reaction that ran through my mind when I first encountered the new Kandies. Now, don’t get me wrong, I have always been a fan of Roksan electronics and what goes inside their cases has always been very impressive. It’s just that I’ve felt that sometimes those cases themselves, although solid and well built, were just a bit too industrial-looking – well not any more!

Pausing to reflect on the new amplifier’s casework, the eye is immediately drawn to one’s own reflection! The main stylistic feature, regardless of whether you opt for the black or silver front panel, is a mirror-finish strip covering the right-hand two thirds of the front face, through which operational LEDs peek, and some deliciously shiny buttons protrude. These control input selection and tape monitor options, plus a mode button that puts the amplifier into or out of standby, and also gives the option of an instant -20dB volume level cut. The volume knob is another shiny delight, perhaps a little shallow for easy graspability, but, as Roksan’s Touraj Moghaddam rightly points out, how many of us really use the volume knob, when the remote control is invariably within reach?

Finally, those of you who have become used to groping round the back of Roksan gear to find the main power switch will be ruminating in vain, as it has moved – it’s been moved to under the front left hand side of the fascia. I was shown this back at Heathrow, and yet it still took me a good five minutes to remember where it was when my review sample arrived...

The Kandy K2 is typically well featured, with five line level inputs, a tape monitor loop and an additional MM phono input. There is also a video input and bypass output with associated switch – when set to ‘video’, the video input serves as an extra line level connection, when set to ‘bypass’, the two pairs of sockets can be used for connection to an A/V receiver, and the volume control is bypassed to give fixed gain. A preamplifier output is fitted, plus a single pair of loudspeaker terminals if you’re happy to stick with integrated operation.

Finally we come to one of my eternal hot topics, namely the remote control. On this subject, the Kandy K2 passes with flying colours, as it comes with Roksan’s new learning remote handset, complete with swanky backlit LCD touchscreen, which can be programmed to work with a wide variety of other equipment. This is a solid, well made item and I thoroughly enjoyed playing with it – nice one Roksan! Finally, the K2 tips the scales at an impressive 14kg and measures 102x432x380mm.

SOUND QUALITY

Normally at this point I would dive straight into explaining what I heard when listening to the K2, but rather
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INNOVATORS IN SOUND
The phrase 'inky black silences' has what I didn't hear, namely noise, within the soundstage. Equally, throughout the midrange and treble, was distinct — usually you have to and each breath between phrases and slightly behind, the loudspeakers was silence — it really was quite when things grew quiet, all you heard audiences had their sweets and crisps and nearby traffic halted, or concert been used before but this is the most this track suggested a slightly over full bass. Whils the actual string plucks of the double bass were vivid and finely etched, the notes that resulted occasionally seemed a tad overblown - something to watch for when selecting partnering equipment.

Finally, a review of an amplifier with a phono stage wouldn't be complete without some vinyl action, more than happy to let its hair down a bit and party when the occasion requires. 'Learn to Fly' rocked along with gusto and impeccable pace and passed the foot-tap test with flying colours. Dave Grohl's enthusiastic guitar action pounded from the loudspeakers with power and rhythmical alacrity, but I was aware that there was a slight sense of over-enthusiasm at times in the low end. The Yuri Honing Trio's version of 'Walking on the Moon' is a good pointer for any low end foibles and, sure enough, spinning this track suggested a slightly over full bass. Whils the actual string plucks of the double bass were vivid and finely etched, the notes that resulted occasionally seemed a tad overblown - something to watch for when selecting partnering equipment.

Top priority, I feel sure that many potential purchasers who have it on their audition list will find it very close to the top once they hear it.

CONCLUSION
The new K2 version of the Roksan Kandy is undoubtedly a very fine amplifier, well specified and wrapped up in a solid, heavy and smartly styled enclosure. It offers the sort of sophisticated performance that suggests a much bigger price tag and, provided the bass issues noted are taken into consideration when choosing partnering equipment and that vinyl replay is not your very

MEASURED PERFORMANCE
The K2 is interesting for its unusual distortion characteristics. Even at high frequencies and low levels, where crossover distortion products usually make themselves rudely known, the K2 produces a very amenable distortion pattern with a steady decline in harmonic level with rising frequency. This pattern is much like that of a musical instrument, and unlike the discordant sounding harmonic structure of crossover distortion. Measurement showed the characteristic hold even with high current delivery into low 4 Ohm loads, from low right up to high power output levels, an impressive result suggestive of good sound quality. Power output was high at 128 Watts into 4 Ohms and a massive 210 Watts into 4 Ohms. Factor in a high damping factor and the Kandy K2 should sound tight, powerful and easier on the ear than most.

The phone stage is accurately equalised and has gain down to 14Hz (-1dB); there is no warp filter. Sensitivity is normal at 4.5mV and overload satisfactory at 53mV. With a low equivalent input noise of 0.3uV the stage is quiet too.

The K2 measures very well and is interesting in its characteristics. It

and so I flipped to the MM input with enthusiasm. Sadly, things were less encouraging here — although there was a strong suggestion that the spatiality and precision of the line inputs was still present, this was rather masked by the overall nature of the phono input, which was slightly blurred at the top end, and lacking in impetus. Nice as it was to listen to, The Eagles' 'King of Hollywood' could have bounded forth with more enthusiasm.

REFERENCE SYSTEM
LAD GAJ942/Helius Aureus Gold/Goldring 2500 turntable
Marantz CD94 CD player
Ferrograph Si loudspeakers (modified)

VERDICT •••• £

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AGAINST
- slight bass bloom
- uninspiring phono stage
"The real star of the show for me, however, is the Phono3 as it is particularly astonishing in its abilities, especially at its modest price."

Passive RIAA EQ
Based around a triple gain stage of ECC83 valves, this phono preamplifier utilises passive RIAA equalisation (zero feedback) for the finest sonic performance from any turntable. A separate power supply removes all sources of hum and noise from the Phono3S case for optimum clarity of sound.

MM and MC inputs
WDPhono3S offers you two inputs, selected on the front panel, for MM and MC cartridges. MC inputs feature high performance step-up transformers for the lowest noise, clearest output from any cartridge. Each input has individual impedance matching to obtain the best sound from the cartridge of your choice. In addition you can select the subsonic filter characteristic to give the optimum results from your turntable, arm and cartridge.

"So there we have it, a preamplifier capable of driving any load and maintaining its linearity no matter what cables or partnering equipment you prefer to use."

The Active Preamp principle
This 5 input line level preamp is essentially an SE triode power amplifier in concept. WDPre3 uses an ECC82 double triode arranged as input voltage amplifier and power output amplifier stages, the latter driving oversize 20:1 output transformers.

Active vs Passive
Many enthusiasts assume that a 'passive' control unit (essentially just a volume control and switching system in a box) is the ideal 'preamplifier'. However this assumption takes no account of the interface between the source and the power amplifier, let alone the effects of partnering cables. The WDPre3 effective isolates the source from the power amplifier and provides the correct terminating impedance to optimise the musical performance.
Following David Price’s review of the PrimaLuna ProLogue Eight valve CD player, Neville Roberts tries out the latest upgrade to emerge from Herman van den Dungen’s Durob Audio...

**Dutch Courage**

The ProLogue Eight incorporates the same tiny triode-based clock used in the SuperTubeClock. The theory is that a valve clock produces an ultra-clean sine wave that effectively eliminates jitter, resulting in a significant improvement to the sound of a CD.

The player also sports a ‘state-of-the-art’ Burr Brown SRC4192 upsampler and Burr Brown PCM 1792 DACs as well as employing custom designed isolation transformers. There’s a dual-mono, zero-feedback output stage using one 12AX7 and one 12AU7 (ECC83 and ECC82 to you and me) per channel, with each being supplied by a separate SAR4 (GZ34) valve-rectified power supply — six valves in total.

The result is impressive, and I agree with DP that the PL8 has arrestingly natural timing, dizzying amounts of detail and organic musicality. So it’s clearly a pretty good unit as it stands, but where can you go from here?

**IV INTO VIII MUST GO!**

The answer is to fit a Super I/V op-amp kit! PrimaLuna claims that the Super I/V Board Plus incorporates a new type of op-amp that has never been used before by an audio manufacturer.

From a theoretical point of view, an upgrade of the I/V components should improve the sound quality. £139 is a relatively small sum to invest in to upgrade a £1,849 CD player, but is it worth it?

It was a simple matter to replace my Njoe Tjoeb 4000 valve CD player with the standard ProLogue Eight in my system. My well-spun copy of Vivaldi Violin Concertos Op.6 (Decca 455 653-2) was placed on the CD tray and I was ready for some serious listening...

The ProLogue Eight in its standard form offered a highly detailed presentation with clear and well-defined strings, and no signs of harshness. Moving onto vocals, Cecilia Bartoli’s ‘The Vivaldi Album’ (Decca 289 466 569-2) is a pretty demanding CD for any system and the ProLogue Eight responded well to the extreme changes of tone and tempo in the recording as well as the breathtaking vocal gymnastics of Cecilia Bartoli.

Moving to something a bit more modern, Gordon Giltrap’s guitar playing on ‘Airwaves’ (La Cooka Ratcha LCVP108CD) produced a crystal clear performance on the ProLogue Eight.

Time to switch off and swap the four op-amps with the Super I/V op-amp board. Listening again using the same set of CDs, by comparison it became evident that the midrange had been slightly lacking with the standard op-amps fitted. Also, the bass was now much more extended and tighter with the new board. The overall effect was a huge improvement in the realism of the various performances. The sound was altogether more believable with an expansive sound stage of extremely well-balanced instruments.

In conclusion then, the Super I/V op-amp board is not just a worthwhile upgrade — I would say it is a ‘must have’. For the price, it really is a ‘no-brainer’.

---

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Letter of the Month

The Music

While reminiscing with a friend about the music we listened to in our teens as I discussed my next upgrade, I was reminded of how much enjoyment I used to get from a piece of vinyl played on a Dansette record player, taking a 'Magic Carpet Ride' lying on the floor, head stuffed between a pair of speakers belonging to a cheap stereo system, but the sound was fantastic!

I currently have a system of reasonable merit consisting of Naim Nait Si, CD5x, Cambridge Audio Azur 640H Music Server, Technics SL 1200 and Shahinian Super Elf speakers with a mixture of homemade and purchased cables and interconnects. Quite obviously the sound quality produced by this set-up is way ahead of my old Dansette. However, the only aspect of the system that approaches the early thrill I used to get from music is using the turntable - which set me thinking why?

I think I have isolated this to three possible reasons. First, there is just so much music around today that finding real gems among the dross is difficult. Second, age and lowering hormone levels has taken the edge off. Third, the degradation of sound quality with the onset of badly produced MP3s and low quality CDs.

In the past music was less freely available and more precious to us; a new single or LP was something to treasure (though remembering the state of some of my early vinyl, I wished I had paid a bit more attention to its care), I remember how we would all wait in anticipation of the next single release by the Beatles or Rolling Stones, how 'Can't Explain' knocked me off my feet the first time I heard it and the sheer joy of listening to all the new music from the psychedelic era. Like my parents before me, I think age has played its part. I find most of the new so-called R&B, Rap music and bland stadium pop of Cold Play et al. very tedious.

Though I love my music server for its convenience, it fails to thrill absolutely and the ease with which downloaded music can be obtained has not only degraded the sound quality by the production of low grade MP3s, but forgotten the packaging which was so integral to the listening experience. Though I was mortified when my copy of 'Sticky Fingers' was destroyed by the zip cover and my Beatles 'Let It Be' package book lost half its pages on the first day, I remember spending hours staring at LP covers for extra clues about the music and bands that produced them. Does anyone remember looking at the inner vinyl centre of LPs to see messages etched into the vinyl?

I have now rediscovered this feeling in jazz over the past couple of years, taking my introduction from Steely Dan and Miles Davis via John McLaughlin. I am now starting to rekindle some of the old enthusiasm I had and accumulate a reasonable collection of jazz on vinyl. I now listen to John Coltrane, Miles Davis or Charles Mingus, sat with a glass of beer in hand, bang slap in between the speakers, doors shut, and volume high and away from my daughter and wife for an hour or two.

I think so much of the joy of music is being able to interact, clean the record, cue the arm and ponder the record sleeve. My jazz vinyl collection is bringing that back as I am now discovering new sounds and find great pleasure in second hand record shops, digging out old, long forgotten favourites; even the smell of dusty covers and inner sleeves just adds to the overall experience.

Handling an LP is a completely different feeling to that of a soulless CD or piece of vapourware like an MP3. So maybe I will delay that upgrade a while, leave the Naim power supply in the shop a while longer and take a trip down memory lane to the record shop and get back in touch with what all this stuff is really about - the music!

Garnet Newton-Wade

Well quite. Couldn't have put it better myself! DP
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RECESSION BEATER

Being employed within the building trade and attempting to retain all aspects of my audiophile interests, I thought I might pass on a "top-tip" for fellow enthusiasts who might find themselves in similar financial circumstances. I had to think long and hard as the economic chill set in and it was the merest zephyr of a possibility that I might have to sell part of my hi-fi which kick-started me into the wholly satisfactory solution which may well be of use to other readers...

The thought - the very idea - that I might have to sell my Musical Fidelity A5, sent a shiver of distaste, the like of which I have never previously known, down my spine. The answer is, as is often the case, a simple one, they are the best after all.

Like a lot of people, I have a mother-in-law, and whilst not in the first flush of youth, is still both vibrant and voluble (yes, voluble) at the tender age of 82 years old. So, following the B+Q system of encouraging the more experienced members of society, I found her a part time job on a firewood round in Stockport. Now, this might seem onerous to some, but she is out in the fresh air, getting plenty of exercise and meeting new people. In fairness, controlling the donkey took her a little time, but this is all in the interest of the green economy. I allow her to keep twenty percent of the net, and she can eat as many carrots as she likes, which helps her during the long, dark, winter nights.

Brian Oakley

Thanks Brian – an excellent tip for all upgraders on a budget, or even those simply fighting the imperative to downsize their systems in these austere times. Lovely as Arcam's Solo Mini is, I would personally keep a separates hi-fi system and let the senior extended family members get some fresh air of an evening, DP

TURNTABLE HEAVEN

I have a maximum budget of £1,000 to purchase a new turntable, phonostage, arm and cartridge. I would start at listening to combinations at £8,000 and work my way up until I can hear no increase in musical enjoyment and would welcome some help in putting together a short list. What would you add to or remove from the list below?

My thoughts so far for a turntable are Notts Analogue Dais, Raven AC, SME 2012, SME 1012, Linn LP12, Avid Volvere, Xerxes 20 plus and Michell Orbe full version. Cartridges are Koetsu Rosewood, Ortofon Windfeld and Jubilee. Phonostages are Quad QC 24P, Art Audio Vinyl One, Anatec MC1, Icon Audio, Eastern Electric Minimax Phono, Linn Linto. Arms are SME V, Naim Aro, Roksan Artemiz and Linn Ekos.

My amp is a Musical Fidelity Nuviota M3, my speakers are Dal Helicon 800 MK2 and my speaker cables are Chord Epic super twin. For the avoidance of doubt I am not going to change any of these.

My musical tastes are acoustic, jazz, blues, classical, female and male vocals from the 50s and 60s and 1970s rock. I like an open, clean, neutral sound with a large sound stage which is rhythmical and musical.

I would also welcome some advice on how to approach auditioning turntables, auditioning at home is a given before making my final choice, as I appreciate a dealer is not going to want to swap cartridges in out of arms when I could be looking at cartridges turntable I know, turning every song into a very emotional experience. However, it is 'off the pace' in terms of detail retrieval, soundstaging, dynamics, etc. The Michell has, to my ears, the widest soundstaging and a lovely neutral tonality, really able to communicate the timbre of individual instruments. The SME has wonderful depth perspective and is very clean, but a little cerebral sounding for some. The Avid is massively powerful and dynamic, with masses of information and great stability, although it demands the listener's attention almost too much for some tastes. The Roksan is a very well judged mix of the Avid, the SME and Michell - not quite as strong in any individual area but to many a superior compromise. I haven't heard the other two yet, so can't opin

Which turntable to go for with many thousands to spend - Avid Volvere Sequel, Linn, SME or Michell? Once you've chosen a turntable, you need the right arm. I find the Naim Aro works exceptionally well on the Linn (maximising its musicality), and on the Avid (making it a more beguiling, less 'hi-fi' sound). The SME V is great on the SME (of course), but does make it all the more clinical unless partnered with a Koetsu or vdH Frog. The SME V also sings on a Roksan; it's a fine combination. On the Michell, the best arm I've heard is the Origin Live Enterprise; this is one of the best sub £7,000 turntable/arm pairings I've heard, getting the best out of the Michell. It makes for a very expansive, silky and easy sound (more mellifluous than the Avid) but with masses of detail and insight too – and this would be my personal choice at this particular price point.

Cartridges again depend on turntables and arms, but the Koetsu is the most romantic and coloured, meaning it suits the very tonally neutral Avid and SME best, whereas the Ortofon Windfeld is light and
Chord Epic speaker cable
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spry, being better for the warmer sounding Linn (and to a lesser extent Michell and Roksan).

Again, phono stages depend on the cartridges, but we happen to think the Icon Audio PS3 is a brilliant value design and its deep, rich tonality again flatters the Avid and SME, works great with the Michell and Roksan and will sound a little warm and loose with the Linn; in this case go for a Whist P530.R or Naim Stageline.

Ultimately Norman, it's all in the listening; decide a 'platform' (i.e. turntable) you like and build your system around it – that's the best way. One thing you can be sure of is that you'll have fun when you've got it to your taste – an £11,000 vinyl front end is a thing of sonic beauty indeed! DP

On the matter of arm length, 12in arms were devised to lower distortion - and they do do so. One reason I have a 12in SME is to minimise the contribution of arm distortion (caused by geometric tracking error) to the measurement of cartridge distortion. The other is that it gives an easy, relaxed get sound. However, 12in arms are less rigid than shorter 9in types, so there is a trade off here; they are rhythmically less grippy. On balance 9in (or 10in nowadays) arms are most convenient, as 12in arms demand a massive plinth. On another note though, 12in arms are architecturally impressive, a sight to behold. But see the next letter on this...NK

THE VINYL CUT

You were kind enough to answer my email about the Sony TT53000/PLA286 in the September issue, so I thought I would let you know what has finally become. Before I could do much to it, I had to source a new belt and some appropriate oil. I found the belt for a very reasonable fifteen dollars in the States at www.turntablebasics.com and the oil, as well as a protractor and strobe disc, at Audio Origami.

Next problem to deal with was the arm, which really had seen better days - it needed a complete strip, rewire and re-glue. After discussing it with several dealers including Johnnie at Audio Origami, Mike at MOTH and my usual dealer here in France, I decided it needed a friendly home (I did not really like its looks) and sold it for renovation to Chris, a Canadian TT53000 enthusiast.

So I then needed a new arm and came across an Intak 12" in the North of England. Once I had bought it, my troubles were not over - nobody could be 100% sure of the precise geometry. Denon DL103 – DP’s favourite cartridge, not!

and phonostage. The phonostage chose itself - I got a Naim Prefix K for well under £100 on eBay! (I have a spare HiCap hanging around, another plus point.) Naim, another fast and friendly email helpline, gave me a list of non-Linn cartridges that work well with the K settings (I want variety from my turntables, so I did not want to fit a second Troika).

Budget and my French dealer's enthusiasm for a product he makes practically nothing on led me to the Denon DL103! The whole thing came together today when my dealer fitted the Denon and generally set the lot up. Result, brilliant! I want more 12" arms in my collection and might even consider a second turntable with a DL103 on it! Less distortion, more air, more stable image... Good enough to stand up to the Avid Volvere Sequel/SME309/I Dunovector17D3! I heard about two months ago.

SME’s new 312S 12in magnesium tonearm, a great choice if you have a house large enough..

Between Linn (nice fast email helpline) and the ever-helpful Johnnie of AO, I came to the conclusion that the SME3012 would be a good guide to start with. So I ended up phoning an order for a Linn diameter slider from Darren at Slate Audio (not cheap but very nicely made). The woodworking involved is quite accessible even for the visually-challenged like me, as long as you use hand tools and are patient. When you cannot really see what you are doing, a 30mm bit on the end of a power drill is quite an experience...

Next came the choice of cartridge.

Next stage? Enjoy the Sony as well and the LP12 and JBE Slate Series 3.

And next year? Renovate/selfexchange some or all of the rest of the collection - SL150, Denon DP2000, Mayware V, Hadcock 228. SME 3009 Fixed, Shure V15 III, Rathwell transformer, Stagelines N and K.

Thanks for the best vinyl coverage I have yet to find in the English-speaking press.

Nigel Briggs

Oh Nigel – how I pray for you in your darkness! And to think, readers, not only did this poor man have the misfortune to buy a Denon DL103, he actually saw fit to broadcast the fact to a nation that I am sure is now in shock at his actions. Forget banks imploding, the credit crunch, the ending of the world as we know it, etc... here we have an individual who wilfully transgressed the laws of hi-fi nature and bought a geriatric old transducer last used by the Japanese version of Jimmy Young in 1959! Don’t worry Nigel, the nice men in white coats will be there soon to give you your medicine. Meanwhile, readers, try to strike this sorry tale from your mind. Don’t let it dissuade you in your quest for hi-fi heaven; good things can come to those who wait.

And let it be a lesson – if you don’t you could end up with a Denon DL103 recutting your records with its spherical stylus at 50 grammes (or whatever the tracking weight is of the latest ‘improved’ version is – 49?)

DP

You’d be right to sell the tat Nigel and keep an eye on modern product. I well know and have used at length V15s and 3009s and they are “pleasant” shall we say. The Denon DL103 has sonic attractions perhaps, but is a grossly over rated product that is coloured and inaccurate; it’s an internet special that’s been talked up in the (deluded) collective consciousness. You’d better advised to get a good modern moving coil from Ortofon, Audio Technica or Dynavector I believe, unless you prefer romance to all else. NK
### SALE LIST

Huge Reductions on new & used Linn Equipment

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PROG SHOCKER
My system comprises a Linn Mimik CD player, Rega P3 and AT440MLa turntable, Marantz PM6010- OSE KI Signature, Mission 733i floorstanders, Samsung DVD-950H DVD player for SACD duties and vdfH. The Name interconnect between the Mimik and amp, plus Audioquest Type IV speaker cable.
I am generally very happy with the sound: clear, punchy, very articulate and musical. It’s taken me a long time to be able to achieve the sound I want, but for reasonable outlay, I think I have what I am looking for, for the most part. But lately I’ve found the Linn Mimik to be a little of a puzzle, however. Some albums are fabulous — Joni Mitchell’s Embassy No. 61 for a while, but it’s £600 of your cash — I’d counsel a drop the price on their DV135, a closed-in and the soundstoge slightly constrained. My Budget is up to £1,500. The new Cyrus SE machines appear to have the most favourable reviews so the 6 and the 8 both figure in my list. I’m considering the following: [1] add a Russ Andrews DAC-I to the CD6000. [2] replace the CD6000 with a CD8 SE, and [3] replace the CD6000 with a CD6 SE and Russ Andrews DAC-I Combination. My main question is, at which point does a Russ Andrews DAC-I make sense, would it improve either the CD6000 or CD8 SE beyond the CD8 SE? I listen to rock music mostly, from the 1960s to present day.

Steve Shawyer
Hi Steve — I refer you to the answer I gave some moments ago! The best combo, on your budget, is the Cyrus CD XT-SE and Stello SA100.

Hi George — good as the Mimik is, it’s certainly a little long in the tooth and now a fair way off Compact Disc state of the art. As such — and considering you’re only able to splash £600 of your cash — I’d counsel a Stello SA100 Signature DAC. Actually, it’s £50 more than that, so you’ll have to stay off the Newcastle Brown and Embassy No. 6s for a while, but it’s well worth the outlay. Indeed, the Stello is I think the current state of the art. The Stello/RA DAC would get me an excellent used player, or take me into Audiolab 8000CD, Rega Apollo or Marantz SA7001-KI territory for instance. Then I heard Arcam have dropped the price on their DV135, a universal player admittedly, but which is strong on music apparently. And today, I’ve come by a Linn Numerik DAC which is another option at an attractive price.

Help! I listen to a very wide range of music, so the player must be capable of dealing with this. I prefer a detailed, analytical, but very musical sound. We have a large-ish lounge, speakers pointing down the length of the room, very slightly toed-in. As I say, when the Mimik copes, it copes very well indeed so I would be disappointed to lose what it brings me for 85% of the time. At the moment, I think I am considering the DAC first, the new CD player the second and a universal player third, however, I would be very interested in your suggestions and any recommendations you may have.

George Corner

Expect a very clean, open and three dimensional sound that’s stable and unfazed by willfully complex prog rock! DP

TRANSPORT FOR SOMEONE
Reading about the improvements that a DAC upgrade can have on a CD player has made me curious to investigate this upgrade path myself. My system consists of Marantz CD6000 OSE KI CD player, PM7200 integrated and Mission M74i loudspeakers, but for the next year or two I am living in a house where I can only listen via headphones. For that, the CD6000 feeds a Graham Slee Salo (MK2) directly, which in turn is feeding a pair of Grado SR80 headphones. The upgrade of my amplifier and speakers can therefore wait a while, but I do want to upgrade the front end.
I’m quite satisfied with the level of detail that I’m getting through the Grados but I find the sound a bit closed in and the soundstage slightly constrained. My Budget is up to £1,500. The new Cyrus SE machines appear to have the most favourable reviews so the 6 and the 8 both figure in my list. I’m considering the following: [1] add a Russ Andrews DAC-I to the CD6000. [2] replace the CD 6000 with a CD8 SE, and [3] replace the CD6000 with a CD6 SE and Russ Andrews DAC-I Combination. My main question is, at which point does a Russ Andrews DAC-I make sense, would it improve either the CD6000 or CD8 SE beyond the CD8 SE? I listen to rock music mostly, from the 1960s to present day.

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Hi Steve — I refer you to the answer I gave some moments ago! The best combo, on your budget, is the Cyrus CD XT-SE and Stello SA100.
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eg
Block + 1m cable = £169.99
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(normal £199.99)
ON THE LEVEL

I have recently dusted down and connected a Rega Planar 3 turntable to a Denon 50050 (to transfer my vinyl LPs to CD) but the sound seems very low/quiet (on the Video 1 input) compared to the other inputs. So I believe I need to get a phono preamplifier. However, I am not sure whether it should be for a moving coil or moving magnet cartridge — how do I find out? Should I perhaps invest in a new cartridge, and does it matter which type? The Rega website states, "Rega believes that moving coil and moving magnet cartridges require different types of phono pre amplifiers to achieve optimum performance". Can you get phono preamps that are suitable for both? Any help and guidance would be immensely appreciated.

Richard Percy

The very weak output from phono cartridges requires both preamplification and equalisation before it can be fed into an ordinary line input (e.g., Video, Aux, Tuner what have you - they are all the same). You need an external phono stage and a Cambridge Audio Azur 640P will do the job at low cost. It handles both MM and MC but you have almost certainly got a budget MM (moving magnet) cartridge in your Rega arm, likely the Elys, with a blue body. NK

LOST CART

Dear Hi-Fi World people - where can I buy a Dual CS 305 cartridge from which uses a TK5495 stylus? Thanks for your help.

Maurice Nalletamb

Hi Maurice - I am afraid you can't anymore! You will need to fit an Audio Technica AT 110E cartridge instead, which will sound better anyway. Do a Google search to find your nearest vendor. DP

TRACK BACK

Many years ago my late parents recorded their voices onto a vinyl disc, using a coin operated recording booth. Sadly the disc got badly scratched and my Thorens TD 150 refuses to track it properly. I'm sure a laser linear tracking machine would read it, but I'm reluctant to spend £5,000 plus on an ELP Laser Turntable! Are there any companies, to your knowledge, with suitable equipment who offer a reclamation service?

Geoff McAuley

I'm inclined to recommend you try using a disco cartridge with a high tracking force, like the Shure SC35C that will track at 5gms. This may just force its way through the damage.

JANUARY 2009

MAIL

SPEAK EASY

I have been looking towards replacing my ancient Mission 753s for the last two years but am worried about making a good decision. This is due to the inability to audition with equipment similar to my own. My current system is as follows: Avid Diva TTAvid (RB300) arm and Dynavector DV 11x5, PS Audio GPCH Phonostage connected by Clearer Audio Silverline IIC XLR, Pathos Logos integrated amplifier, Musical Fidelity AS I/C, Kimber 8TC speaker cable and Quadraspire wooden shelved stands.

The system is housed across the width of the main living room which measures 7 metres long by 4 metres wide. Owing to the room configuration the speakers need to be placed very close to the wall and not more than 2.5 metres apart owing to the position of the doors. My main musical tastes are the usual rock - Santana, Dire Straits, Rolling Stones, etc. with a lot of blues, some folk and occasionally the odd bit of classical. I have made a long shortlist, and am hoping you can give me some guidance and help clear my confusion.

I am looking for a nicely balanced sound with a sweet top end, and a nice driving rhythm.

I was thinking about [1] Spendor S8e, which I know to be one of your mainstays, [2] Pinsh 2.1, which I heard a couple of years ago at Bristol and thought the ribbon was beautiful, [3] Monitor Audio GS20 or GS60 - would the 60 overpower my room? Also, [4] Kibri Naima and stands - would they be okay in my room close to the wall? [5] Usher 718be + stands - they look beautifully made [6] Kudos Cordea.

Mick O'Connor

I think you got it in one there, Mick. The Spendor S8e is an excellent match for your valve aspirated Pathos integrated, as it is an easy load, works well in confined spaces and generally doesn't kick up a stink. Its easy, relaxed sound also happens to be tuneful and enjoyable. I feel the Monitor Audios would be a little too 'full on' for your tastes, the Pinsh unhappy with the amp and the Ushers a little mismatched with your system. The Kudos C10 is another excellent speaker for this application, but on balance I still think it needs more Watts to give of its best. DP

A MINI ADVENTURE

Reading various articles in the thoroughly enjoyable August 2008 issue of Hi-Fi World has rekindled my enthusiasm for vinyl and made me realise that perhaps there is still life in my old record collection. The conundrum that I now have is of how best to enjoy it on a relatively small budget...

My current system consists of an Arcam Solo Mini playing through B&W 686 speakers. In a cupboard I have a Rega Planar 3 turntable which is approaching twenty years of age which I would now like to resuscitate. A local dealer has said that they could service...
the turntable for about £50 and fit and supply an Ortofon Red MM cartridge for £60. My plan was then to purchase a phono stage such as Project’s Phono Box MkII and some interconnects such as Chord Company’s Crimson cable and play the Rega through the Mini.

Enjoying both music and hi-fi, and intrigued by comments in your magazine, I would then like to start trying to get more out of the Rega. I was thinking of having the RB300 refurbished, adding a new platter or platter mat and a better quality cartridge when funds allow. Bearing in mind the limitations of the Mini and B&W 686’s do you think that the upgrades to the turntable mentioned would be appreciable through my current system?

As much as I enjoy the sound of my current set up, eventually I would like to upgrade to a separates system. With this in mind, would it make more sense to invest in a better phono stage now for use with the Arcam Mini which could then be used and more fully utilised on separates that may be purchased in the future?

Richard Slater

The Rega Planar 3 has the excellent RB300 arm and I would suggest you let your dealer look over it and fit an Ortofon Red cartridge. However, the Red has a very ‘modern’ sound with a forward midband that doesn’t disguise groove noise, distortion and damage. I suggest you listen to it first. For a warm sound try a Shure M97xE or Nagaoka MP11. An external phono stage from Whest or Icon Audio would then be on my short list. NK

As I write this, I am currently listening to an Avid Acutus/SME V1 v4† Frog turntable, via a Icon Audio PS3 valve phono stage, into my own Arcam Solo Mini (which I bought when Arcam asked for it back, at the insistence of ‘third parties’ in my household who wield power disproportionate to their hi-fi knowledge!), driving my Yamaha NS1000Ms. Actually I have say it sounds lovely; not as good as my reference Sugden IA4 Class A amplifier I should add, but still very enjoyable and easy on the ear. With this in mind, I feel you should invest in a truly good vinyl source for your Solo Mini. To wit, go for a Goldring G1042 moving magnet cartridge at the very least. Indeed, I have got great results with Audio Technica’s AT-OCS9 moving coil (yes, really), whose light, slyr sound complements the Rega’s warmth. Then invest in the best budget phono stage around right now, which to my ears is the ANT Audio Kora 3T SE (£325). This front end will stand you in great shape for future upgrades to your amp, and will help the Solo Mini sing its little heart out. By the way, a Silvermann Labs Clarity 1 mains lead is a great upgrade to the Arcam for just £70, and will improve all sources — even DAB radio. DP

Hissy Fit

My quest is steering a course through what has been choppy waters, but my upgrade journey nears its end. I do have some problems and I am going to ask questions, so listen carefully to the story and tell me where I need to go for audio heaven.

Recently I changed from a solid state Linn/Naim set up. They were nice, but now that I am in a different place, I realise that they were dark days indeed...

Now though, my problem is sibilance — where is it coming from and how on earth do I get rid of it? I am now reasonably happy with an old Townshend Elite Rock (of which I am privileged to have had a minor research moment with it during my post grad studies) with Excellibur and using a Dynavector DV20X. I also own an Ortofon MC2000, but this needs a rebuild, having only read about these and not having heard it, is it actually worth the rebuild purely in terms of sound quality, as I am not that bothered about the rebuild cost.

My power amplifiers are Quicksilver v4 Monoblocks — simply excellent amplifiers. I arrived at this via Quicksilver KT88 Monoblocks (not enough power), Audio Research D70 (sounds awful, not enough power), then Audio Research VT100 MKII (cracking amplifier, but, couldn’t hold a candle to the V4s). My preamplifier is an Audio Research SP9 Mk III, which seems to be okay, but my suspicion is that this is where my sibilance is coming from.

Would I be right in thinking this? Would a valve change help this problem? Is the SP9 MkIII merely prone to hissiness and I should just get rid of it and replace it, and if so, any recommendations?

I’d appreciate your advice as it was initially the Hi-Fi World DIY supplement that provided the valve obsession and my wife plants the blame thoroughly at your door - and she gets annoyed by the sibilance too!

Ewan Scott
Thanks for the suggestions, Graeme. Funny how enough, great minds think alike. My own Technics SL10 is at Vantage Audio (tel: +44 (0) 1823 433650, www.vantageaudio.com) awaiting the very same treatment. The bad news is that their services are very much in demand these days, so it may be a long wait – precisely why we haven’t run the rebuild feature yet. We also hope to do a feature on deep cryogenic treatment sometime too, and are talking to acknowledged experts in this area, Frozen Audio (tel: +44 (0) 1449 675060, www.frozensolidaudio.com).

**DARK SIDE OF THE TUNE**

When I read your advice to Hi-Fi World correspondents, I find it is often tied to budgets. If your budget is £1,000, then go for this set of speakers, but if you can double your budget, then check the other, and so on. It’s good advice and eminently sensible, especially in these straitened times. But I want to ask a question where there is no mention of budget. Which isn’t to say that the budget is unlimited. On the contrary, there should be absolute limits on what I want to spend, but I would like those limits to be determined by the context supplied by the rest of the system. To me, the art of listening to reproduced music is all about balance – a sense of equilibrium across many, often conflicting, priorities. Let me explain...

I have a very early Linn LP12 and a Grace G707 tonearm, driving a Dynavector 10X5S cartridge. The Linn has a new motor, and the Hercules power supply from Stanford Audio. Otherwise, it is still quite untouched and has the warm bouncy feel of early Linnas. The output is fed to a Parasound Z-phono stage. The rest of the system is Cambridge 840A v2 amp, Cambridge 840 CD player and Revel Performa M20 standmounts. The Linn sits on a Quadraspire rack and the cabling is Chord and Kimber. I really like the Cambridge units and the Revels, and see no reason to change them any time soon.

I see from your classic section that the Grace is off the pace. And the Parasound is pretty basic anyway. And my cartridge will probably live only another six months before it needs to be changed. So here’s the question. What would you suggest I do with the vinyl part of my system? I don’t want to buy a new turntable but I will be happy to make changes to the arm, cartridge and phono section - or even other bits of the Linn.

Here’s where the pesky budget question usually rears its head. My take is this: I don’t have a defined limit. All I want to know is what can I put in that will make best use of the rest of the system, without either being silly money, or something that constrains the rest of the system.

The Mojik LP12 review points to a straightforward starting point for a modern Linn-based system. But what about one from 1974, like mine? Is there an optimum amount to spend on a Linn? I am sure the sky is the limit on the upgrade possibilities. So here’s the bottom line. What is the most sensible set of upgrades taking the rest of what I have in account? In other words, what’s the optimum amount for me to spend on Linn? I welcome your take on this issue.

Jyoti Banerjee

Okay then! You want to stick with your 1974 Linn. That’s fair enough. If it was me, I wouldn’t start from there, but you like your turntable for all its strengths and weaknesses, and you’ve arrived at this opinion from a position of knowledge, not ignorance. So that’s what floats your boat. And now you want to know how to get more of the same, more what you’re getting already, as opposed to more of what you don’t have/want/like.
(NEW) McIntosh MCD500
SACD/CD, Digital Inputs, Unique parallel DAC and Volume Control add up to one stunning NEW Flagship CD Player from McIntosh. Did we mention that it sounds truly sublime too? It's available on our 0% finance scheme as well.

(NEW) McIntosh MC2301
Never have we laid eyes or ears upon a more beautifully magnificent monoblock tube amplifier! With 300wpc on-demand and one of the quietest tube amps available, you'll hear your music in all its glory on an unprecedented scale!

Marantz TT-1551
Many record lovers are unaware that Marantz make a very affordable audiophile turntable and it's really rather good! With AC servo belt drive and low-coloration tone arm, Marantz has addressed the need for a high performance source component for the analog record at an affordable price.

Shadow have some exclusive Marantz Promotions on Legendary, Premium and Cinema Series...
...to discover what all the fuss is about, visit our web site: www.shadowaudio.co.uk and open our special Marantz Promotions Leaflet today.

VERDICT
McIntosh MT-10
Deposit: £995*
Monthly payment: £222.22*
Months: 36*
Total payable: £8,995

ADAM Gamma SA
Deposit: £995*
Monthly payment: £250*
Months: 36*
Total payable: £9,999

ART Deco 10
Deposit: £840*
Monthly payment: £130*
Months: 36*
Total payable: £8,000

ATC SCM19
Deposit: £149*
Pay balance: £1,350 in 12 Months*
Total payable: £1,499

Resolution Audio Opus 21
Deposit: £295*
Monthly payment: £125*
Months: 12*
Total payable: £2,995

ATC SIA2-150
Deposit: £735*
Monthly payment: £166.67*
Months: 12*
Total payable: £2,248

*subject to availability
**subject to written details on request
So... it's a no-brainer. The Naim Aro tonearm is in my opinion the most musical tonearm you can fit to an LP12 — it was in 1986 when it came out and still is now. It's not brilliant in every way (even a 1979 Linn Ittok LVII has tighter bass, for example), but it's brilliant in its own way — which is the way you like. Which is to say, it's deliciously tuneful, lyrical and rhythmically organic. So there's your arm.

Next, I'd counsel a new Linn Akiva moving coil — a geometric fit for your Aro and a brilliant musical match. It's a little on the revealing side, but you'll get away with it and love its beguiling sound. The only cartridge that would arguably do better for the sound you like is the Koetsu Red Signature, or the old Supex SD900V, but the Linn is the ideal first stop before you decide you want something even more errm, like the Koetsu.

As for the phono stage, without hesitation I'd suggest the new Icon Audio PS3 — it's wonderfully fulsome, naturally musical and rich tonally, so you'll love it. Come back to us when you've done this and we'll recommend a suitably sweet and euphonic amp and speakers to match.

ALL I NEED IS EVERYTHING

I am unclear as to what might be best for me and my Thorens TD160B MkII SMLSE3009/Ortofon OM20, Marantz CD7001 KI Signature CD player, PM7200 integrated amp and Dali Mentor 1 speakers. I have a staged budget, to be spread over next 24 months, of approx £4,000 and want to sensibly upgrade, but I would like to try valve amplification, maybe on a headphone amp in the first instance (preferably I want to see the valves glow!), and also to upgrade my CD player (preferably with a Marantz for D-Bus compatibility with current kit) with SACD capability. I would also like to upgrade my LP capability; I really like the Michell Orbe range but don't want to give up on current set up unless necessary. I also want to build my own speakers (from kit not scratch), and would like to drive these with valve monoblocks.

Do I need a new valve amp, or second-hand/self-build monoblocks? Or should I buy a new preamp or use that in the PM7200? Will the World Design floorstanders sound good with valve amplification? Is MC really that much better, or should I look at an Ortofon OM30/40 stylus upgrade? Will I need to upgrade my phono stage? I have been told that my SME will not handle MC is this correct? An upgrade (bearings, belts, connectors etc) kit for the Thorens is available of eBay, is it worth it? Finally, is there such a thing as a second hand hi-fi sole gathering that I might attend for further advice/social purchase? I realise that I have passed a lot of questions, any assistance is greatly appreciated.

Ian Danter

Phew — not much going on in your mind, is there Ian? In order to make sense of this, I'm going to have to strip it down to basics. First the source. The Michell Orbe is far, far superior to the Thorens TD160, and so I suggest this is a good start point, in SE version. You'll also need an arm; go for a Michell TecnoArm (in matching black, why don't you?); and a cartridge in the shape of Goldring's G1042. Total cost £2,500 approx.

Next, your PM7200 amp is now the weak point; I'd counsel buying an Icon Audio Stereo 300 (£1,699) integrated amp. I know you want monoblocks, but on your budget this is the best sound you'll get. Having used the latest version, I really rate this product and love what 300Bs do to the sound — which is to make it beautifully sweet, silky and romantic, whilst retaining a gutsy, powerful demeanour. This will take you closest to getting a serious high end sound on your budget. When you next get some money, come back to us for an SACD player recommendation.

I am sorry I haven't followed your detailed plans, but you have to ask yourself do you actually want to listen to (and love) your music, or do you want to faff around with your hi-fi for the next five years. The path I've suggested will deliver the former. Just a few specifics; yes, World Design speakers work very well with valves (as you'd expect), and would be dynamite with the Icon 300B.

Yes, MC is that much better, but it's altogether pricier; when you have more money for a cartridge upgrade, look at an Ortofon Kontrapunkt b (£750). Meanwhile, the ANT Audio Kora 3T SE (£325) is ideal for your Goldring, SME 3009s will track MCs, but aren't ideally suited to the job; a modern Rega variant like the Michell TecnoArm is better. I don't know about gatherings, but there are plenty of good web forums such as www. theartofsound.net. DP

SACD

I am writing regarding your reply to Gerald Bearman's letter in the current Hi-Fi World issue (p. 49 / 5 "Bitstream of consciousness"). You got me really worried there for a moment.

I was looking for a SACD / universal player that would output DSD via HDMI (which I found in the Oppo 910). Now you telling us DSD is handled in PCM after all.

Have been in touch with Onkyo. They just told me that their TX NR 905 has dedicated DSD processors onboard. The signal is only converted to PCM if the DSP processor is used. (Phh... thank goodness for that.). So not all AV receivers do the DSD to PCM conversion.

I have also been in contact with Yamaha. My Rx V 2700 "... converts the DSD signal to high quality PCM..." So newer, more expensive machines seem to be more SACD friendly.

Regards

Fred Schuetz

Thanks for your diligent researches Fred. I know there are a lot of people out there with big SACD collections who feel the industry - Sony? - have abandoned them. The whole SACD / DVD-A farrago is shameful. However, whilst the...
The listening experience at house of linn is so good demonstrations last for hours.... Discover how we make music sound real in your home.

Independently owned and operated by former Linn staff to give you the best Linn experience from Komri to Classik.

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Demonstration, Sales, Installation, Upgrades, Aftercare for all Linn Hi-Fi Components & Systems.
Over the years I have encountered a myriad of devices that support turntables and CD players in various forms. Some use air or magnetism to provide support. Whilst other designs have favoured a more solid approach, varying hugely in mass and concept. Falling firmly into the latter category is Pro-Ject’s Groundit Deluxe 1 equipment support. It tips the scales at a not insubstantial 11.6 Kg, and consists of an acrylic chassis, finished in a pleasant looking piano-gloss, dark grey lacquer. Inside is what is described as a granulate filling. The internal cavity is not fully filled so that the contents may move and settle, giving the Groundit a self-leveling ability. External dimensions are 500x400x65mm; the latter dimension includes 20mm for the adjustable aluminium cone feet. Five threaded holes are provided underneath, one near each front corner, with corresponding ones at the back. The fifth is located in the centre at the back, thus providing the option of three or four cone support. Little clear plastic feet are also fitted around the edge as an alternative to the cones.

I first tried it under my Linn Sondek, and found that compared to just using the surface of the Target wall support, there was a substantial overall sonic improvement. The sound had more authority and definition. Timing also seemed tighter and surface noise was noticeably subdued. The deck normally resides on a Voodoo Airtrek, which uses air and a laminated wood frame in its construction. Compared to this, I felt that the Groundit delved deeper into the bass, but the extra weight slightly detracted from the sprightliness of the sound. Vocalists seemed to be set a bit further back in the mix as well. Moving to my Clearaudio Master Solution turntable, and I found that this solid chassis design sounded more suited to the Groundit.

The Clearaudio has, I feel, a slightly architectural approach in its sonic delivery, whereas the Linn tends more to the ethereal. Used under the Clearaudio the tonal colours and textures became more defined and solidity, especially in the bass regions, was impressive but not overpowering. This improvement in focus was also apparent when tried underneath a Leema Acoustics Antilla CD player. Some might prefer the musical flavour this support gave to the Sondek, but I felt that it was more effective underneath solid chassis equipment, analogue or digital. Certainly very impressive and well worth auditioning.

[Contact: +44 (0)1235 511166, www.henleydesigns.co.uk]

KLIPSCH IGROOVE SXT £75

In hi-fi terms, there’s nothing particularly lovely about an iPod dock — unless you’re talking about the stunning B&W Zeppelin, that is, which is a very special thing indeed. Trouble is, it will set you back some £400, and even then many will find it too big and a tad unwieldy. It also lacks finesse – wanting as it does to blast out music with its sledgehammer punch. What then do you do if you simply want a good, basic iPod speaker system for your kitchen, bedroom or bathroom? Well, look no further than Klipsch’s iGroove SXT. The interesting thing about this product is that it’s remarkably similar in size and design to Bose’s SoundDock, apart from the fact that it’s half the price, is twice as well made and sounds a whole dimension better...

Where the SoundDock distorts at high volumes, its thin rear cabinet walls flexing as the whole structure wheezes under the strain put upon it by the speakers, the iGroove SXT remains resolutely in control. It’s an altogether better made product, and turns any iPod into a fine sounding miniature music centre. A true two-way system, it sports twin 2.5” woofers in a ported enclosure, “premium crossovers” and dual 3/4-inch MicroTractrix Horn-loaded tweeters. The iGroove SXT accepts and charges any iPod with a 30-pin connector (including the iPhone in Aviation mode), while the iPod Shuffle and other audio devices can connect via a rear auxiliary input, and an S-video output lets you view videos on external monitors should you so wish. It comes in a gloss black finish, in high quality plastic that’s a good deal thicker than the Bose, and sports a neat bundled card remote control. Overall, a clean, smooth and powerful sounding no-nonsense iPod dock at a great price – recommended. DP

[Contact: www.klipsch.com]
Wishful

VW 'VINYL KILLER' VAN
How can you not love this gizmo from Hard to Find! For those not in the know, the vinyl killer is a model VW camper van, featuring an inbuilt drive wheel, cartridge, amplifier and loudspeaker! You simply set the (non-valuable) record of your choice onto a flat surface, position the van over the outer groove with the stylus located therein and switch it on. The van then drives round and round the record, following the groove which is read by the cartridge and sending the music out through the built-in speaker. I guarantee even the most anti-vinyl types will raise a grin at this, but it's probably best to keep it tucked away safely if you're having a party. Your hangover will only be intensified by the morning after discovering that some kind friend has set it on your favourite record. £80 will buy you a pink one but why not spend £10 more and go for a gold one for that extra bling factor?

BRENNAN JB7

This solid little £299 unit (from 3GA) is the size of a paperback book, but features a CD drive, 40GB of internal memory (an 80GB version is £20 extra, a 160GB version £50 extra), a large, easy-to-read display and even a built in 30W per channel digital amplifier. You simply slot in your CDs, it rips them to its internal memory at the bit rate of your choosing (even lossless) and off you go — play all its contents on random, organise them into playlists or transfer them onto your MP3 player; either way, you've joined the digital age! You can buy a matching pair of loudspeakers for £60 to form a complete system, you can listen through headphones or you can use the line out to feed the JB7 into your main hi-fi system. A really neat solution if you fancy a digital dabble!

VESTAX BLUE HEADSHELL
My ever growing turntable collection includes quite a few decks with S-shaped arms, so spare headshells are always very useful. Also it is a well known fact that a good quality headshell makes for good quality sound, and I am something of a fan of those made by Vestax. These solid £20 designs screw tightly into the arm and offer a secure platform to which your chosen cartridge can be heartily bolted. Oh, and they're about £140 cheaper than the Clearaudio Stability headshell, which let's be honest, is the one we'd all really like! However, why blue? Well, my treasured semi-pro London Acoustical Developments GAJ828 direct drive turntable is finished in a rather fetching shade of blue. I have equipped it with a blue Funk Firm Achromat mat and an Audio Technica AT110E cartridge (featuring blue stylus) and stumbling across Vestax's Blue headsHELL from Hard to Find? For those not in the know, the vinyl killer is a model VW camper van, featuring an inbuilt drive wheel, cartridge, amplifier and loudspeaker! You simply set the (non-valuable) record of your choice onto a flat surface, position the van over the outer groove with the stylus located therein and switch it on. The van then drives round and round the record, following the groove which is read by the cartridge and sending the music out through the built-in speaker. I guarantee even the most anti-vinyl types will raise a grin at this, but it's probably best to keep it tucked away safely if you're having a party. Your hangover will only be intensified by the morning after discovering that some kind friend has set it on your favourite record. £80 will buy you a pink one but why not spend £10 more and go for a gold one for that extra bling factor?

BANG & OLUFSEN A9 KEYRING
A typically beautiful lump of highly polished and perfectly anodised metal loveliness to which you fit your bunch of keys. But this B&O fella has three buttons on it: labelled Audio, Video and Light, and you can use one or all of them to activate your Bang & Olufsen music system, television and light controller the moment you walk in the door, or alternatively switch them off as you leave. In this way you need never miss a moment of your favourite song or DVD, and you can be ecologically content that you have zapped the lights off in your house as you left. It's far more subtle than a Porsche keyring when you hand it over to the parking valet as well...
Thinking

NAME: Steven Green
DESCRIPTION: Radio Gaga
LIVES: Stockport

Thinking

IN CAR PC
Listening to music on a car stereo currently involves a lot of messing about, either changing discs over or connecting an MP3 player, mobile phone or USB stick to the head unit, and then you have to find the music you're looking for using the car stereo's prehistoric display that usually consists of just one line of text. But this system eliminates all this hassle by allowing you to store hundreds of hours of audio on hard drive, and you're then able to easily locate the audio you're looking for via a large icon-based touch-screen display. It can also connect to the Internet via mobile broadband or Wi-Fi, for Internet radio, BBC iPlayer on-demand radio programmes or podcasts. An FM/AM receiver is also standard for when you're driving in an area without mobile broadband coverage. And if you're stuck in a 10-mile tailback on the motorway, you could catch-up on some TV via the iPlayer, while away the time on YouTube, watch a bit of a DVD, surf the web or write some emails using the wireless keyboard. Price is £1,000 to £2,500, depending on spec, but expect prices to tumble.

SAMSUNG YPP2 MP3 PLAYER
It is surprising how watchable video is even on screens as small as two inches, so the Samsung YP-P2's larger 3" widescreen display - with its 480x272 pixel screen containing seventy percent more pixels than other decent quality MP3 players - is all the more enjoyable. Importantly, it's also one of a select bunch of MP3 players that can play BBC iPlayer TV programme downloads (as it supports Microsoft's DRM), so this would be an ideal companion to take on a long journey. The YP-P2 also supports Bluetooth stereo audio streaming, and it has a snazzy touch-screen user-interface as well. Factor in fine sound and it's an impressive package at just £119 for the 8GB version.

PURE AVANTI FLOW
Along with the new Evoke Flow, this has to be Pure's finest product to date. In common with the former, the Avanti supports Wi-Fi Internet radio, DAB, FM and wireless music streaming from a computer. But apart from that it is a very different animal to the small, mono Evoke, as the Avanti is a much larger receiver with two 3" mid-range speakers plus a 5.25" downward-facing subwoofer, along with an output power of 75W RMS. It also has an iPod dock on the top of the unit. At £280 it's not cheap, but it is a truly high quality device that is about as flexible as is possible to get at the price.

NOKIA N96 SMARTPHONE
Possibly the world's most advanced portable media player at the present time, with 16 GB of onboard flash, and support for a wide range of both audio and video formats, it's already a match for higher-end MP3 players. But what sets the N96 apart are the other features it supports, such as that it's currently the only device that can stream or download BBC iPlayer programmes, and it can do this via 3G or Wi-Fi. Its built-in support for Flash also means that it can stream from various video websites, such as YouTube. It's equally impressive on the radio side as well. In addition to FM with RDS, the Nokia Internet Radio application is pre-installed, which provides access to hundreds of Internet stations, and free software available on the Internet can be installed to provide access to the thousands of Internet stations available on Shoutcast.com. Podcasts are also supported, and the BBC's live Internet radio streams will be available within the next few weeks once the BBC starts delivering them in the Flash format. The N96 also supports the DVB-H mobile TV standard. There are no DVB-H transmissions in the UK yet, but when they eventually begin the N96 provides an electronic programme guide (EPG) for the channels, plus it can record TV programmes, so it's effectively a mini PVR to boot! Free with a Vodafone contract.

Here's what the Hi-Fi World team want for Christmas. Forget your usual wish list of socks, watches and aftershave, this little lot is far more eclectic!
* Please ask about our ex-demo stock; many items are virtually as new but with large reductions.

Please visit our website for product technical and ordering info.

We deliver by Business Post 24hr service (subject to stock availability), and internationally by DHL, TNT or UPS.

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Tel: 020 7724 7224 Fax: 020 7724 4347 contact@walrus.co.uk www.walrus.co.uk
This is a test tone generator that's designed to be plugged into a line level input on your amplifier, whereupon it produces a single frequency tone ranging from 20Hz to 200Hz. This device, £39.99 from Audio Reference, is very effective and would say that it gives some of the best results I have found over years of trying just about every possible commercial and homemade alternative. Compared to a conventional felt mat, surface noise is drastically reduced and imaging and bandwidth are greatly increased. It is especially effective on decks with glass or metal platters.

21ST CENTURY VINYL
A lot has been written over the years about the art of setting up and tuning a turntable, but, to the best of my knowledge, this is the first audio visual aid to appear. You might think it strange that a reviewer would want to spend £24.45 (from Audiophile Candy) on such a thing, after all, we already know it, don't we? - but there is always something to be learned from looking at the familiar from a different perspective. Michael Fremer, long time Contributing Editor to Stereophile magazine, is a relaxed and friendly guide to that analogue nirvana of how to get a finely tuned record player. His delivery is interspersed with anecdotes and asides that leave the viewer with the feeling that they have just had a pleasant and informative chat with a knowledgeable and enthusiastic friend. There are odd mishaps that aren't just you, everybody does it), and.

CLEARAUDIO VINYL HARMO-NICER
Over the years there have been many materials used for turntable mats, some effective, some less so. Clearaudio have come up with a different take on the concept with the Vinyl Harmo-nicer. This is essentially a record with one side blank, which rests against the platter, whilst the top has a fine textured finish cut into it. This is designed to interact with the grooves on a record to create the best possible vibration-less contact between record and mat. This device, £69.95, is always something to be learned from looking at the familiar from a different perspective. Michael Fremer, long time Contributing Editor to Stereophile magazine, is a relaxed and friendly guide to that analogue nirvana of how to get a finely tuned record player. His delivery is interspersed with anecdotes and asides that leave the viewer with the feeling that they have just had a pleasant and informative chat with a knowledgeable and enthusiastic friend. There are odd mishaps that aren't just you, everybody does it), and, one little hint, don't be too keen to switch the disc off when it seems to end; as a surprise awaits.

CLASSIC GRAMOPHONE TONEARM CLEANING BRUSH
Keeping a record clean is essential to good reproduction of the sounds embedded in the grooves. To this end there are various products available that will wash, wipe and brush records before playing. However, not many address the problem of dust which lands on a record during replay. Going back to the acoustic days of the 1920s and 30s, the dust problem was solved by using this rather natty little brush that clips behind the soundbox of your gramophone. It is made of chromium-plated steel with badger hair forming the brush. It fits all 1/2 inch diameter tone-arms, as found on the majority of equipment of the period. (Users of HMMV models that use the number 16, 5, 5A and 5B soundboxes would have to bend the clips a little to make it fit the 5/8 inch arms on such units.) Still findable on the second hand market via eBay for under £15, no self-respecting gramophile should be without one!

RUSS ANDREWS ZAPPER & STROBE DISC
Everybody knows that correct rotational speed of a turntable is essential for correct reproduction of a record, and there are various products available which do a satisfactory job for the microgroove speeds of 33 and 45 rpm. However, those of us that still venture into the standard groove world of 78rpm are less well served. Russ has come to the rescue with his Zapper and strobe discs. The former is a battery-powered light which flashes at 300Hz. Along with it comes a disc for the microgroove speeds, and a well thought out 'standard speed' disc that covers the speed ranges from 74.07 rpm to 82.19 rpm, over 10 increments. This is essential since the 78 speed did not become standardised until the 1940s, although the majority of records from the early 30s onwards were recorded at 78. It is simple to use and effective.
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www.henleydesigns.co.uk, 01235 511166
The advent of CD-ripping music servers means that it is finally possible to have a file-based digital music system without a traditional computer anywhere to be seen. Patrick Cleasby has been living like this with a Ripfactory Ripserver for the last six months...

For several years now, an ever increasing number of people have been using their computers to play music. It's likely that they've digitised their CD collection to their PC's hard drive, likely using software such as iTunes, and are playing back via their computer using a network music player such as a Logitech Squeezebox. However, high end music listeners may not wish to be constantly fiddling with computers and their innately complicated programs to ensure that their digital music library is correctly ripped, tagged, and artworked. The field is certainly open for a fiddle-free solution such as this, which is essentially a 'black box' that you feed with your CDs. It 'rips' them to its internal hard drive in very high quality FLAC (Free Lossless Audio Codec) format, and then acts as a digital transport for network music players such as Linn's Sneaky DS. The Ripfactory Ripserver is precisely this.

Essentially a diminutive Linux computer, it is built to a fanless design and available in black and white, with 500GB (600MHz processor, £600) and 1TB (1GHz processor, £700) capacities. But its cleverest trick is that it is literally a 'black box' solution, so the computer-phobic shouldn't be afraid to contemplate it (although Linux freaks can attach mouse, keyboard and display to play with it). The Ripserver is plug and play in every sense of the word - it just oozes the expertise of its creators from the instant you plug it in.

I was one of the early recipients of a demo unit and in common with many over the last six months have seen two major increments to the software on the device, which have successfully dealt with some minor teething issues. There has been some suggestion by those who didn't make it through the issues or their resolution that the Ripserver was announced and released too early to the market. This is easily refutable, as the device's design has clearly demonstrated itself to be cleverly conceived to permit trouble-free updates. This was originally via full system updates (preserving your rips) achieved by simply burning a data CD and feeding it to the machine and waiting! Now it is often by simply typing a URL and running a script over the web, commonplace by global operating systems suppliers' standards, but impressive for a small UK company. However, we now return to the start of the odyssey...

SET UP
Once you are lucky enough to receive your compact Ripfactory box, (they are in such high demand that there can be a lead time of a few weeks), all you will find along with the securely packaged unit is a PC laptop-type power supply, a manual and an Ethernet cable. The supplied unit was the 500GB/600MHz variant; both units have 1GB of RAM.

All that is required to get up and running then, is to connect the Ethernet cable (there is no basic wireless option, although USB adapters can be added) to your domestic router, and switch the power on - whereupon your Logitech or Linn network music player should hook up immediately. In non-networked environments there are more esoteric options such as running a crossover Ethernet cable to a Slim device using the latter's wireless bridge capability to provide...
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For superior sound quality you should try the Isoplatmat. Made from SDS Aluminium, the Isoplatmat isolates your vinyl and needle from vibrations and feedback, giving an exceptionally high quality audio. Just place the Isoplatmat on your turntable and, to further enhance your music, you can also use Isofeet placed under the components, subwoofers and speakers. You will be amazed at the sonic improvement to your system.

Isoplatmat £19.95 + p&p
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the internet connection necessary for the Ripserver’s metadata lookup.

The biggest joy, when compared to some competing solutions is how carefully thought out and implemented the Ripserver’s storage sharing is. Using Mac OS X Leopard, ‘ Ripserver’ simply pops up in the ‘ shared’ section of the finder (for the technically minded this is achieved via an SMB share). Instructions are supplied in the manual for connecting using lesser operating systems. Once this is achieved, any kind of FLAC music file can be dropped on the NAS hard disk alongside our Ripserver music rips - including 24bit flavours - so you’ve got easy file transfer to the Ripstation, just like dragging digital pictures to or from a memory card.

All that is required to control the initial set up of the Ripserver is to type ‘ ripserver’ into the computer browser of your choice on the same home network your Ripserver is connected to. You need to select the codec you wish to rip to, and then in principle you will rarely have to revisit the control web GUI (Graphical User Interface), although the backup or RAID options are strongly recommended! Since the latest version it has been possible to rip to WAV rather than FLAC, although there is very little sense in doing so, but more interestingly, you can set the device to rip to both FLAC and MP3 (selectable bitrate) ‘ simultaneously’. This appealed to me as it enabled me to get high quality 320kbps MP3 to use on my iPod at the same time as feeding my Slim front end at home.

The inverted commas around ‘ simultaneously’ are there because you don’t get anything for free - background processing times are generally perceived to be long. The Ripserver rapidly strips WAV files from the CDs inserted in its slot, but while it proceeds onto the next (and/or continues to play out to your frontend(s)), it takes a long time to reliably compress that WAV file to FLAC and MP3 - as a benchmark, a weekend’s worth of disc insertions rendered about 1,000 tracks into the queue - still processing on Tuesday! But the results are worth it - no rip has ever played back in a corrupted fashion.

UTILISATION

Much of my past six months has been spent (re)digitising my ridiculously large collection of CDs to FLAC - nearly filling two Ripserver’s worth and still not done! Those of you who made early decisions to compress to lossy formats, only to latter restart on lossless ripping will feel my pain. But somehow the simplicity, reliability and quality of Ripserver ripping makes the whole process bearable.

Before we get on to auditioning, it is worth examining how the ripping works, as this is a key selling point to potential purchasers. It has to be said that the results have improved in two key regards since the first shipping version, so any other early adopters should make sure they are updated to the level of what is called the ‘ August update’.

As well as the key importance of the intelligent ‘Ripguard’ aspects of the Ripfactory process to flawless file quality, users also now have very high standards in the quality of the metadata (Artist, Album, Track info etc) and artwork attached to a digital file. Many commercial solutions use the Gracenote CD Data Database (CDDB) for this purpose, with iTunes providing very high quality artwork (in their case, and increasingly others such as Slim, for rich looking controller interfaces such as iPod and Apple TV).

Until the August update, the Ripserver depended on the very open FreeDB database, but since then it has switched to primary usage of the Get Digital Data (GD3) database, reverting to FreeDB if no GD3 data is found. I have found its album-oriented GD3 lookup to be flawless, with higher quality artwork, and the handful of misses being successfully fielded by FreeDB.

The predisposition of the previous version to display bizarre characters in place of accented ones, and then refuse to add FLAC tagging for those files, has thankfully been lost. But the issue of what happens when Ripserver tagging goes wrong is highlighted by attempts to rip CD singles. In a truly interactive environment like iTunes the software can ask the user to chose a candidate in more ambiguous search returns such as those from CD singles. Due to its ‘headless’ operation Ripserver has to make up its own mind and it is often infuriatingly wrong. To this end there is an announced update, soon to arrive, which will permit Web GUI-based tag updates.

Some nefarious activity was necessary to verify the expectation that Ripserver rips should meet the exacting standards of high-end downloaders who expect the likes of the legendary West German ‘ Targets’ CDs of twenty five years ago to be ripped on a PC with no errors. So I Ripserver-ed my Target of ‘Christine McVie’ and A-B’d it with the original and it was perfect.

CONCLUSION

The Ripserver has evolved significantly during the period of time I have spent with it, and its software architecture now permits ridiculously easy system upgrades. This, along with the responsiveness of Ripfactory’s support, reassures me that any minor niggles (including the higher quality HDCD ripping also requested by Linn) will be dealt with, somewhat negating the feeling that Ripfactory lacks the open-source advantages of Linn and Slim...

But any hi-fi solution depends on the quality of its playback. The Ripserver takes such care in extracting the file versions of your precious CD archive, while obviating the need to mess around in several layers of PC software, that it is the ideal hassle-free method to achieve a convenient lossless digital music library.

The Ripserver has become so much part of my life that it is hard to imagine being without it, and it is for that reason, dear reader, that in the highest possible recommendation, I bought one...
Peter Comeau details the new World Design WDPRE3 Remote Control Valve Preamplifier...

Last month I gave the outline of how we have adapted the best selling WDPRE3 active valve preamplifier to incorporate remote control facilities for adjusting volume and selecting the input from the comfort of your armchair.

This month I'm going over the construction and layout of the project as it has some interesting features in the way it is put together.

For those who haven't read last month's design article, the WDPRE3 RMC takes its commands from any remote control handset, including any handset that you may already have in your system, and 'learns' the codes for volume and input switching.

So if you already have a remote control handset with input selection and volume up and down buttons then you can simply push the button which puts the WDPRE3 RMC into programmable mode and press the buttons in sequence on your remote. WDPRE3 RMC then 'learns' the codes for each button selection and, once programming is completed, will respond when you press the requisite buttons on your handset.

In addition you still have manual control too. The volume control is a motorised ALPS Blue Beauty potentiometer which can be turned smoothly by the front panel knob. A silky smooth slipping clutch from the motor drive means that there is no resistance to turning the control, yet you can still operate it with the remote once you sit down in your favourite listening chair.

Similarly the input control knob can be turned to any input to select it in the normal way. Switch it to the 'Remote' setting, however, and input selection is turned over to the remote control instead.

Cleverly the front panel LEDs that show which input is selected change colour according to whether you are in Manual or Remote operation. Other front panel LEDs show when you have put the WDPRE3 RMC in program mode and also show up and down volume direction as you control the volume from your remote handset.

The motor drive for volume is a fine geared mechanism so that it is easy to adjust the volume level in small increments. For aficionados the famous World Designs 'shunt mod', where the volume control is taken out of series with the signal and replaced by a high quality resistor for optimum signal purity, is an easy addition. (Note, the 'shunt mod' does result in a 6dB loss of signal level, but the WDPRE3 RMC has plenty of gain to make up for it).

REMOTE CONTROL LOGIC

Starting with the logic control PCB, this is an apparently complex layout based on a high quality double sided PCB with through-hole plating. In fact the layout is more straightforward than it looks (see Figure I) once you follow the logic through.

A front panel Infra Red sensor collects the signal codes from your remote control handset and passes them to IC8 (the SIG input). IC8 is a programmable PIC controller with an EEPROM (IC9) as a data store. IC8 can be put into 'learn' mode by push button PB on the PCB which is easily accessible after removing the lid of the case or can be pressed by pushing an implement through a hole in the case lid.

This push button switch PB also operates the relay RLY1 which actuates the front panel LED that shows the unit is in 'learn' mode. IC8 has seven outputs, two of which are used for Volume Up and Down and lead to the motor control section via R18 and R19. The other outputs offer input selection and are fed to the logic control section via R13 to R17.

The logic control features a NOR gate, IC1. This is in place so that, when you select and input, all the other inputs are switched 'off' - otherwise you would be able to select more than one input at a time! IC1 only has a momentary action, however, so we need to 'latch' the chosen input 'on' by using a series of logic level Flip Flops. IC2, IC3 and IC4 are the latching switches which hold
Figure 1. Logic PCB layout (colours show top and bottom copper tracks) showing PIC controller (IC8) and EEPROM (IC9), Logic gate IC1, Flip-Flop Latches IC2,3 and 4 and Volume Motor Control

The input switching is done by a relay board on the rear panel, just as used on WDPRE3. This switches the input signals directly from the case mounted professional quality phono sockets. This not only ensures the shortest signal path but also ‘grounds’ the unwanted inputs for minimum interference. Input relays are high quality sealed units with gold over silver contacts.

The output of the Flip Flop latches also energises the requisite front panel LED to show the selected input. These are bi-coloured LEDs which change from Green to Red to indicate whether the unit is in Manual or Remote selection mode.

As we said the volume control is always adjustable using your remote handset, in addition to normal manual operation, and a further two LEDs show the operation of Volume UP and Volume Down as you press the buttons on your remote control.

We incorporated these because the action of the volume control motor is so smooth that you can’t easily tell, when seated, that the volume knob is moving!

Both the front panel LEDs and the IR sensor are mounted on a small PCB which lies behind the centre of the front panel and a ribbon cable connects this to the logic control PCB.

**PHYSICAL CONSTRUCTION**

All the audio circuitry is positioned at the rear of the case in order to keep the signal paths short (see Figure 3 which shows the internal layout). The valve based WDPRE3 circuit is mounted on a PCB just in front of the rear panel Relay Switching PCB. The output of this is fed to the massive output transformers which, in the XL version, provide balanced and unbalanced outputs. These transformers have a very low output impedance, wide bandwidth and considerable drive power in order to drive any interconnects, even long ones to monoblock power amps near the speakers if you wish.

The audio circuitry is screened from the logic control PCB by a centre case separator. This makes sure that there is no possible chance of interference from the logic switching signals to the audio circuitry. Naturally the logic board has its own power supply decoupling too.

Power for the HT and

Figure 2. The 'Shunt mod' effectively removes the potentiometer from the series signal circuit, replacing it with a high quality resistor. The top diagram shows how a potentiometer is normally connected – the signal passes through the pot on its way to the preamp circuit.

At the bottom we can see how to change the wiring so that the potentiometer becomes part of a voltage divider with a high quality resistor in the series leg. The pot then becomes the shunt part of the voltage divider.
WDKEL84 Valve Amplifier Kit

"The quality that can be gleaned from this amp is a fine introduction to the joys of the valve sound"

The WDKEL84 features a pair of EL84 valves in Push Pull configuration per channel, providing two channels each 18 Watts into an 8 Ohm load. Available as a 5 input integrated amplifier with ALPS volume control.

WDKEL84 kit £449
WDKEL84 built and tested £599

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"The result is an amplifier that combines majesty, transparency and rhythmic boogie factor with the ability to swing and sing on all types of music"

Often described as a 'sweet sounding' valve, our particular implementation of the KT88 makes sure that it is driven to its ultimate performance. Available as a 35W stereo power amplifier with single input volume control, or as a relay switched integrated with five inputs.

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WD25A Standmount Speaker Kit

"The one aspect that stands out is the easy ability to resolve instruments and voices ... bass quality and definition is a revelation"

Cabinet kit (pair) £299

The aperiodic enclosure offers the bass clarity and definition of a larger closed box, together with the efficiency and easy amplifier load necessary for users of valve amplifiers. Available with SEAS STD soft dome treble unit, or high performance SEAS Excel treble unit.

WD25A STD kit (pair) £215
WD25A XL kit (pair) £398

WD25T Floorstanding Speaker Kit

"The WD25T always sounds crisp and taut, but can 'rumble' menacingly giving impressive physicality reminiscent of far larger boxes. Imaging is superb, the midband is also special; it's very open with masses of detail about the condition of the recording"

Cabinet kit (pair) £469

Cunningly arranged as an aperiodic enclosure leading to a lower sealed compartment, the WD25T combines the optimum damping of aperiodic loading with the bass extension of a large closed box. Available with STD soft dome or high performance Excel treble units. Both the WD25 kits are based around a SEAS 26cm (10") paper cone bass unit with an efficiency of 89dB for 1W. The crossover has been developed for an easy drive 6 - 8 Ohm load making the system ideal for all types of amplifiers.

WD25Tv2 STD kit (pair) £299
WD25Tv2 XL kit (pair) £479

All our kits are complete with pictorial easy-to-follow instructions. All parts are included - all you need is a screwdriver and soldering iron.

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DIY FEATURE

Figure 3. Case internal layout has separate screened areas for the audio section at the rear with Input Relay board, main preamplifier PCB and transformers, and the volume control. All the logic control is contained within its own section in the case.

The heater supply is derived from our standard WDPSU3 power supply unit, which also has output for the World Designs Valve Phono amplifier. The heater supply also provides the locally decoupled voltage to operate the Input Relay Switch PCB and the Logic circuit as well as the volume control motor. All the latter take only a small fraction of the heater supply capability (at most 30mA) so the WDPSU3 needs no modification to supply the WDPRE3 RMC even when you have the WDPhono3 unit connected as well.

**BALANCED OUTPUTS**

The unique feature of the WDPRE3 Valve preamplifier circuit is that the output stage incorporates isolating output transformers. These have centre tapped secondary windings arranged so that the output can be configured for balanced mode in order to eliminate noise pickup in the case of long interconnects to remote power amplifiers.

Not everyone requires balanced outputs so we have arranged WDPRE3 RMC to arrive in two versions. The Standard version has four RCA phono outputs and you can configure the WDPRE3 circuit for x6 or x12 gain. x6 gain is more than enough for the majority of source components and power amplifier sensitivities, but some 'classic' valve power amps may benefit from the higher gain setting and so it is there if you need it.

In the XL version one pair of RCA phono outputs is replaced by miniature XLR connectors. In this case both sections of the output transformer secondaries are used to provide a fully floating balanced output with centre tap. Gain in this mode is x6.

The XL option for the WDPRE3 RMC adds our SONIQS SAX capacitors in the signal path, BHC Aerovox power supply capacitor and provides both balanced or unbalanced outputs to your power amplifier(s).

WDPRE3 RMC is, as usual, available in kit form with a full set of pictorial instructions to guide you through the simple construction of this unique preamplifier. Everything is supplied, right down to the last grub screw. All you need is a soldering iron, screwdriver and a multimeter for testing. Alternatively you can opt to have our experienced engineers build the WDPRE3 RMC for you!

For prices and delivery please visit the World Designs website at www.world-designs.co.uk or ring us on 01832 293320.

Next month we return to our Open Baffle speaker design with details of our spanking new drive units.

![Figure 4. A small board holds the Infra Red sensor and display LEDs for input selection behind the front panel.](image-url)
Platinum is Monitor Audio's new flagship speaker range named after this most precious of metals.

The range comprises three models; the PL100 compact two-way speaker, the PL300 three-way floor standing speaker and the PLC350, a large three-way, four-driver centre channel speaker. All models feature Monitor Audio's RDT® technology drive units and C-CAM® ribbon tweeters. Custom-designed floor stands are available for the PL100 and PLC350.

The braced cabinets are finished in exotic Santos Rosewood, Ebony natural wood veneers and Piano black lacquer. All are coated with eleven layers of clear gloss piano lacquer for an outstanding finish, complementing the hand-upholstered leather front baffles.

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Welcome to Hi-Fi World's 2008 Awards special, where you'll find our favourite products reviewed over the past twelve months. Competition has been exceptionally tough this year, so we're delighted to bring you what in our opinion are the year's best offerings in specialist separates hi-fi...

AWARDS 2008:THE WINNERS

LOUDSPEAKERS: Q ACOUSTICS 10501
TURNTABLE: AVID VOLVERE SEQUEL
PHONO STAGE: EMILEX LABS KPE-2AS
DIGITAL: CHORD QBD76
INTEGRATED: LEEMA PULSE
POWER AMPLIFIER: QUAD II EIGHTY
SYSTEM: ARCAM SOLO MINI
COMPUTER AUDIO: LINN SNEAKY BS
Although we've reviewed a number of very fine loudspeakers this year, many have been disconcertingly highly priced. So, given the stiff economic climes right now, we've decided to hand this year's top transducer award to something altogether more affordable. Q Acoustics' 1050i is not the world's best speaker, but it's certainly one of the best value...

The princely sum of £299 (discounted) buys you a seriously big (975x295x195mm) box for your money, with 35.7 litres capacity and a weight of 17.8kg apiece. Wrap your knuckle on the cabinet and there's little sense of a hollow box of air; rather it's a sturdy housing for the twin 165mm mid/bass fibre coned drivers working together with a single 25mm ferrofluid cooled Polyester weave tweeter, effectively as two-way speaker. The whole box sits on an integral aluminium plinth with 'top configurable' floor spikes, and being a bass reflex design has a port below the bass driver. Inside is the fourth order Linkwitz-Riley crossover. The speaker is designed at Fink Audio in Germany with final voicing by Q Acoustics here in the UK, and manufacturing in China.

To be frank, most £299 floorstanders are just plain nasty to listen to if you've grown accustomed to more expensive, rarefied designs – but the Q 1050i is an obvious exception to this rule. For all its faults (and it has some, like every speaker), it remains highly listenable no matter what music you choose to play through it, and what system you partner it with. Indeed, it is one of those rare beasts that can both satisfy with budget ancillaries and shine with most expensive sources and amplification. No matter what you put through it, it seems, the 1050i just has fun.

Fascinatingly, it is one of the most 'retro' sounding boxes we've come across for a long time; it's far more warm and sumptuous than your average modern box, and all the better for it. Still, the big Qs can shift lots of air, go seriously loud gracefully and deliver a satisfying punch – all whilst preserving a fine sense of musical timing. The only blot on its virtually spotless copybook is a slightly coarse sounding tweeter, but even this covers its tracks well and simply imparts a slightly 'out of focus' feel, as opposed to out and out harshness. Overall, a stunning value package.

**WORLD AWARDS**

**LOUDSPEAKERS**

**WINNER: Q ACOUSTICS 1050i £299**

**RUNNER UP:**

**MARTIN LOGAN THE SOURCE £1,599**

These are not the best all round £1,599 loudspeakers, but they are exceptional in what they do well – which is to give a wide, expansive and seamless sound that only electrostastics can bring. This, the first affordable electrostatic, deserves to succeed.
This year has seen a good number of excellent turntables tested in the pages of Hi-Fi World, so much so that this category proved the most hotly contended of them all. However, one particular machine stuck out in our collective minds for its superb all round ability allied to its unassuming looks and small footprint. Whereas £5,000 will buy you vast sculptural monoliths in Perspex, gold or chromium if you so wish, Avid’s Volvere Sequel is an altogether more unassuming proposition — but no less effective. Indeed, it is more. We’ve often asked ourselves, ‘If you were going to do a turntable from first principles, how would you do it?’ Well the Avid is pretty much best practice made visible; there’s very little conceptually wrong with it, which sets it apart from so many other rivals, some of which are more accomplished in particular respects yet less able all rounders. Here we have a belt drive with a very powerful, muscular motor, a short belt running close to the inner platter and a suspension designed with almost no lateral movement possible. This gets around most of the bugbears of belt drive at a stroke — and it shows in the listening, as the Avid is exceptionally speed-stable and unfussed even when the musical going get tough. It also features a superbly designed platter and record support which sinks all the vibrations from the record surface down to earth, creating a highly stable platform that lets the tonearm do its job.

The result is a turntable that doesn’t sound like a turntable; it is highly neutral, neither euphonic like many rival high end decks nor dysphonic like expensive digital devices, and simply draws your attention to what is in the groove. Interestingly, many analogue addicts actually admit the Avid is brilliant but don’t like the sound, describing it as too stark, too dynamic, too clear. But to criticise it for these reasons is to object to its proximity to live music, which possesses the same characteristics. It certainly isn’t a machine to provide background music — being a seat-of-the-pants listening experience — but if you’re satisfied that this is what you want then there’s nothing at the price to touch it.

We’d counsel partnering with a Naim ARO tonearm and a Koetsu or van den Hul cartridge, whereupon it mellowes out and sweetens up, giving just the right balance between detail and beguiling musicality. Beautifully made, functionally superb but not terribly sexy to look at, the Avid Volvere Sequel does exactly what a high end turntable should do — which is bring you closer to your record collection.
Phono stages have come a long way since the first really successful such product, the Michell ISO, hit the shops some twenty years ago. This was a striking sounding bit of kit, but resolutely 'solid-state' in character; bold, explicit, upfront and somewhat lacking in finesse. Now though, we're slap bang in the middle of a valve revival — and don't go thinking it's simply a faddish thing that's going to pass by leaving us back with transistors. Whereas we once needed those dinky little three legged semiconductors to do jobs like amplifying the very low voltage emanating from moving coil cartridges, this can now be done with valves — and some would say dramatically better.

Of course, there's still a lot to be said for a serious solid-state phono stage (like Naim's Stageline, for example). Very low noise, goodly amounts of detail and a hyper clean sound is hard for any analogue addict to argue with, but power up a fine valve design like this one from Emille Labs and you can see that solid-state doesn't tell the whole story. Valve phono stages bring to music a natural rhythmic flow that is relaxing and totally convincing, giving music a sense of easy progression. Then there is the sound staging; instruments positioned within a real environment rather than being pasted onto a flat background.

But these are generalities. Where the £2,990 Emille Labs KPE-2AS justifies its position in life is with a breathtakingly open and sweet sound — one that is far superior to all else except Icon Audio's PS3, but the two are very different. The KPE-2AS has a spectacularly light, open delivery that is pure as spring water in its basic tonality. This is the sound delivered by boutique components and carefully chosen valves; it is highly refined and of virginal purity, hence the price. At low frequencies the KPE-2AS delivers superbly well formed bass that is strong and fast. Drums have a delicious resonant quality to them. At the other end of the spectrum treble is ringingly clear and sonorous.

The result is a gloriously open and musical performance, with a wide open soundstage and strong images that hang in space. It's a very special way to listen to a vinyl record - when fed by a high end turntable/arm and cartridge combination.

**Runner up:**

**ICON AUDIO PS3 £1,400**

One of the very best valve designs around, with detail, smoothness and a walk around soundstage and a lovely rich, dark tonality. Superlative value at under £1,500.
CHORD'S RECENT QBD76 HAS A UNIQUE BESPOKE DAC CHIP, a development of the one used in Chord's superb DAC64, of which we are huge fans. It also introduces a completely new concept for hi-fi DACs - that of wireless Bluetooth transmission from a mobile phone.

A new generation field programmable gate array (FPGA) device (the Xilinx Spartan 3) is custom coded by Chord and handles the switching of S/PDIF inputs, all digital S/PDIF decoding, digital Phase Locked Loop, the RAM buffer controller, the Watts Transient Aligned filter and the fifth generation Pulse Array DAC. This forms the heart of the QBD76, and is its single most defining characteristic because it takes control of sound quality away from OEM chip manufacturers and puts it in the hands of Chord.

The unit itself is about as exotic as it is possible to make a digital to analogue convertor look and feel. It retains the DAC64's dimensions and hewn-from-solid feel, but adds a few more flourishes. As before, the large glass aperture showcases the circuitry inside (which lights up in red), but there's a second, smaller looking glass' showing a simple alphanumeric red LED display. All this technology comes at a price of £3,000 - high but less than many rivals.

This is the very best DAC we have heard to date. It loses the original's distinctively warm and romantic quality. The QBD76's greatest defining characteristic is a massively focused and natural sounding top end. To that, however, you can add the midband and bass - because this new DAC is like twiddling the lens of a manual SLR camera and watching everything snap into dramatic focus. On top of this, all the lovely, unfeathered, organic musicality of DAC64 is still there to behold.

Used with the Blu transport and twin digital links a massive 176kHz data rate helps keep this combination sounding special, well ahead of all else right now. It's a breathtaking way to play CD. The QBD76 is a landmark digital device.

RUNNER UP:
CYRUS CD8 SE £1100
The best sounding silver disc spinner under £1,500; the CD 8SE sounds very musical, dynamic and transparent - banishing the usual budget/mid-price CD spinner blues!
INTEGRATED AMPLIFIER
WINNER: LEEMA PULSE £1,195

This is a cost-cut version of Leema's highly acclaimed Tucana amplifier. Costing £1,195 it's less than half the price but is very similar save for a few added features and a slightly less muscular power supply. All the same, Leema claim 80W into 8 Ohms and nearly twice that into 4. The case is a thoroughly conventional size (435x90x375mm) and weighs a hefty 12kg. Considering its price, the Pulse is very well built and finished, and the knobs, fascia styling and electronic switching all work superbly - as you'd expect from this young British company.

Although not overendowed with features, it comes with just the right amount of connectivity anyone assembling a modern mid-price system will need - which means a battery of RCA phono inputs on the back panel, including separate MM and MC cartridge inputs, a LIPS-configurable AV input and a front panel mounted MP3 player input. There's also a record output. full remote control and - unlike the old skool of Brit black boxes - full short circuit protection.

The little Leema sounds very demure, inviting the listener into its soundstage and never offending him (or her). Unlike some Japanese rivals, you don't sit there being pulverised by the sound. Rather, it beguiles you with its rich and warm bass, lacking the steely upper midband of several solid-state amplifiers at twice its price. It makes music an altogether emotional affair, having a lovely warm tonality, super wide and deep soundstage and an inviting demeanour. We love the way it is voiced - it will impress less than many in a showroom, but satisfy more with long term listening at home.

Although not the most punchy sounding design at the price, Leema's Pulse is powerful enough for the sort of speakers it's going to be asked to drive, and dynamic enough to sound highly engaging. One of the most musically satisfying amplifiers we've heard anywhere near its £1,195 price point, this is a truly fine all round integrated and a worthy winner of the Hi-Fi World best amplifier award.

RUNNER UP:
MUSICAL FIDELITY A1 £999

Full Class A operation makes for an exquisitely sweet and inviting sound when paired with efficient loudspeakers; an exceptional package at its £995 price point.
Ten years ago we had only a few tube valve power amplifiers on the market and now there are many, but that doesn’t mean the number of truly superb ones has increased proportionally. The sad thing is that, whilst valve amps have become all the more easy to find and affordable, few have actually got better. It’s all down to the circuit design in the end, along with the quality of the passive components - and in both instances many manufacturers cut corners with cynical rehashes of ancient amps running just passable components and transformers. Happily though this cannot be said of Quad’s II-Eighty (£5,000pr), which is a brand new, state of the art design from the hand of valve supremo, Tim de Paravicini.

Shoeorning KT88s into a chassis little bigger than that of the compact II-forty, this new amplifier updates Walker’s cathode feedback arrangement to give an amplifier that retains the strengths of the II whilst banishing its weaknesses. Gone are the weedy output transformers; Tim claims specifically to have designed an amplifier able to swing full output from low frequencies up to the highest, and our measurements confirmed this. Auto-biased so bias adjustment is unnecessary; just throw the rocker power switch and these monoblocks start without drama. A valve line up of four KT88s, two 6SL7s and one 6SN7 isn’t too costly when replacement is needed. The KT88s will need replacing after a few thousand hours and four matched pairs are ideal. Small signal valves last 10,000 hours or so, so replacement isn’t an issue here.

Forget the sepia-tinted Quad IIs of yesteryear — these are very revealing and do not soften or ameliorate in any way the qualities of a poor source. Valve amplifiers have great dynamics and the II-eighty reminds you of the fact. Music can rise from gentle to thunderous through a range seemingly not spanned by solid-state. They deliver orchestral dynamics to die for, along with stunning low frequency resolution that is brightened by the sonic luminance that comes from well applied KT88s. It’s a very modern sounding valve amplifier, fast yet delightfully clean; it has sonic incision, not laceration. In the II-eighty we sense that Tim de Paravicini has got more from the KT88 than has been heard before. It has fabulously strong dynamics and superb insight, especially at low frequencies. A thoroughly modern take on the valve amplifier and one of the best to date.

RUNNER UP:
ICON AUDIO MB90 £1,799.95
Clean sounding pair of high quality tube monoblocks with a choice of ultralinear or triode operation, for £1,799.95
SYSTEM

WINNER: ARCAM SOLO MINI £600

It's one thing to make fine sounding hi-fi, and it's another to make fine hi-fi that people want to buy. These days, this means that for many folk the conventional hi-fi separates paradigm just isn't right anymore — somehow the joys of connecting up countless boxes with yards of cable is lost on them! The problem is of course that the traditional hi-fi industry has simply turned a surly nose up at such sentiments, and carried on regardless, making inordinately complex and fussy products that for some strange reason seem to stay on dealers shelves. In their place in the homes of many, you can find the likes of Bose and Bang & Olufsen...

Arcam was one of the first British specialist manufacturers to grasp this, making the Solo all-in-one CD player, amplifier and DAB/FM tuner. It was (and is) a superb package for its £1,000 price, giving truly surprising sonics considering the fact that it's not 'real' separates hi-fi — but the only problem is that its 430mm width makes it too big for many 'mini system' buyer's purchasing proclivities. Enter the Solo Mini, which is more than just a Solo that's shrunk in the wash. Its half width 'shoebox' case houses largely the same functionality as the Solo, and indeed it even adds a front panel USB port for playing computer-stored music via memory stick. It sports a superb alphanumeric display and an inspired control layout, placing all the buttons in the most accessible part of the case — on the top lip. The final master stroke is the use of a unobtrusive slot-loading CD disc loader.

The result is a really nice sounding £600 hi-fi system in a small compact package that's brilliantly simple to use. It's so accessible, whether it's the surprisingly well implemented DAB tuner or smooth and sweet sounding CD player. There's even a matching rDock iPod dock that works superbly too. The Solo Mini wins no prizes as a high end hi-fi component, but its strength is that is provides a level of fidelity that casual listeners will never have experienced before. And its sins are those of omission; never does it get harsh or unpleasant; the Solo Mini is sophisticated but fun. This is a brilliant package for your spare room, bedroom or kitchen — while non-audiophile, music-loving friends would regard it as the best thing they've ever heard. A great British product that puts Arcam at the forefront of real world hi-fi design.

RUNNER UP:

EXPOSURE MCX £14,997

Had the UK economy not fallen off a cliff recently, we'd probably be handing the top gong to this brilliant high end package. You don't find superlative performance across a range of sources that match one another visually and sonically very often. Expensive, but deserves to succeed.
This year sees a new category, reflecting the growth in popularity of computer-based audio products. To those somewhat surprised to find this, it's necessary to point out that some manufacturers are now selling more 'network' music players than conventional CD players – and one such case in point is Linn. The Glaswegian high end specialist, who forged its reputation on analogue disc spinners, then consolidated it with some very serious CD and DVD players, now finds itself concentrating on making music players that stream FLAC (Free Lossless Audio Codec) files off computer hard disk drives. Right now, whether we like it or not, that's the way the mass market is going — and the beauty of Linn's new Sneaky DS is that it offers a great and surprisingly affordable way in.

The Sneaky is a somewhat industrial looking metal box, very ruggedly built but devoid of fripperies, displays or fancy finishes. The reason for this is that it is designed to be heard and not seen, preferably placed out of the line of sight, under the stairs or suchlike. It features a DAC and a small 20W stereo amplifier; you simply feed it with the music, delivered from your computer's hard drive via an Ethernet cable, and give it two speakers to drive from the other end. You can then use universal Plug and Play (uPnP) software such as Twonkyvision to play music.

Alternatively it can access Network Attached Storage (NAS), effectively a hard disk drive full of music files which plugs straight in to the Sneaky's network. You can even hook it up to a small portable wireless device (such as those from Nokia) to act as a bespoke remote control, so you don't need to touch your computer at all whilst playing music. All these are optional add-ons though, so you'll have to budget a bit more than the Linn's initial £995 for such functionality. Oh, and the Sneaky will even work as a line-level source component, via its RCA phono outputs.

The sound is excellent, quite up to the standards of most similarly priced CD players, yet the Sneaky is a complete system (speakers notwithstanding). It is crisp and dynamic and punchy, with loads of detail and definition. Better still, it isn't limited to working at CD's 16bit, 44.1kHz native resolution; download some 24/96 'Studio Master' files from Linn's website (www.linnrecords.com) - or record your own, transcribing your LP collection for example - and it grows in stature still further, with breathtaking scale and brilliant timbre.

So there you have it – flexible, upgradeable and extensible yet easy to get up and running. Once you've experienced computer based music (and no one can deny its amazing versatility, flexibility and convenience - once you've digitised your CD collection, that is), it's quite hard to go back to ye olde CD — and the affordable, interesting Linn Sneaky DS shows why.

RUNNER UP:
WADI ITRANSPORT £399

Three hundred-plus pounds is a lot to pay for an iPod dock, but this is exceptional. Right now, it's the only way to offer direct digital out from your iPod – untapping its sonic potential for those running separate DACs. Fiendishly clever, and a great computer audio crossover product.
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For the audiophile community, it's debatable why anyone would want to buy either of these box sets: because Led Zeppelin's name is on the front, or Stan Ricker's? Ricker is the father of modern mastering and arguably the best mastering engineer in the world. Both of these box sets have been recorded by Ricker at half speed. Nice, but so what? Well, Ricker was the guy who invented the process — back when he worked for JVC. Created as a development of that company's vinyl quadraphonic sound development, CD-4, Ricker developed half-speed mastering for JVC's later SuperVinyl brand.

So why half speed? For recordings, audiophiles value those made from 'the original master tape'. Grabbing a signal from an early generation source is always desirable, never mind the analogue benefits. Yet play a tape back at half speed and you solve many inherent tape playback problems that this source contains, such as lag in signal input in the tape preamp and those in the playback head. At half speed, the signal is cleaner as it passes through the system as it is not apt to cause any power supply or slew rate distortion. Hence, the tape machine itself is a problem. It's easy to get the signal recorded - it's harder to recover it.

Produced by Jimmy Page, 'Mothership' is a Best Of... featuring four 180gm discs and a 20-page booklet whilst 'The Song Remains The Same' includes another four discs plus an extra six, previously unreleased, tracks and a 24-page booklet including rare photographs and new liner notes from Cameron Crowe. Beautifully produced and packaged, the sound quality is excellent.

Even the major record labels are noticing that vinyl just refuses to go away. Many of them are re-releasing catalogue items under new brands and EMI has got in on the act with its Capitol Vaults series of remastered albums, released on 180gm vinyl. Apart from the gold Capitol vaults sticker on the shrink wrap, the packaging remains the same. However, the record label differs, featuring a new Capitol design. This album stems from the first batch of re-releases which includes a slew of Radiohead and Coldplay albums plus The Beach Boy's 'Pet Sounds' and REM's 'Document'. A new batch of releases is already on the way - check out the website www.cappillavaults.com for more information.

The sound quality of each of the records will of course depend on the quality of the sources. However, even those with a more digital flavour will benefit from the smoothing out the music will receive via the analogue format. For 'Pablo Honey', the band's debut album released in 1993 — a record that shows both the promise in song writing terms but that trademark energy and attack blended with gentle sensitivity that is a hallmark of Radiohead's art — the album depended on a digital production. What this remaster does provide, therefore, is a softening of the digital edge whilst maintaining a wonderfully open, spacious ambience. Drums sound fresh and lively whilst the lead guitar is axe-like in attack.

Not the most 'audiophile' album I've ever heard and it retains its digital faults but, as it stands, this is the best version of the album currently available. I would like to bet that, for the other reissues produced in the 'digital age', that comment would hold true for them too.
The package itself is a luxurious creation of a double fold-out gatefold sleeve which holds both the albums: 'Trespasser' and 'The Lark Descending', on heavy vinyl. On Trespasser, Woods' style is stripped. Just him and an acoustic guitar, slowly yet methodically investigating English life and times. He combines his own songs with traditional works but all are connected by his emotive delivery. His singing style tells us that he's not only connected to the themes he portrays but he cares about them too. Whether they be general ideas on family life and the roots and connections it can spawn or specific, largely lost, cultural history such as the Mummers, the seasonal folk players who can be traced all the way back to medieval times and who toured the English countryside many years ago.

For the companion album, 'The Lark', Woods peers at merry England in a melancholy manner. Taking the title from Vaughan Williams' 'The Lark Ascending', Woods sees his fellow countrymen's universal acceptance of the existence of catastrophic climate change and the dawning realisation that intensive industrial agriculture has destroyed as much as it has provided. "One of its victims has been the sweet-singing lark. At such times, the nation turns to Vaughan Williams," said Woods.

There are moments of tenderness however. In 'Hard': "She's hard my daughter's hard/ She's only six but don't cross her/ Watch out here she comes lock up your son/ (She takes right after her mother)" reflects on his belief in strong family ties and Wood's wonder at this little being - his little daughter - who brings a smile to his face. Reveal says that it is currently working on an anthology of Wood's work which will feature his current and also his early works.

**NOCTURNAL EMISSIONS**

**Lest We Forget: Work In Progress 1979-1988**

Consisting of four LPs in a pizza-type box, the records are accompanied with a 7" single and a softback book. 'Lest We Forget' collates all of the earliest recordings of this Industrial outfit. A band founded by Nigel Ayers, his brother Daniel Ayers and Caroline K in 1980, "I always describe our work as post-industrial music as it was related to a post-industrial society rather than the later information age," corrected Nigel.

The box contains a range of material only previously available on tape and from the band's earlier incarnation as The Pump. "The tapes sold in the hundreds," remembered Nigel, "there are five albums worth of material in the box plus earlier material from The Pump. The tapes were taken care of and we were happy with the final sound. However, we did intend to record in as direct a manner as possible. At that time we were not looking for production values so, if there's any indication of tape hiss, we don't mind. The primitive nature of the source compliments the group's ethic."

The band looked upon punk, its contemporary movement, and despised. Whilst Punk initially broke boundaries, Nigel believes that it quickly created a rut all of its own. "It became stylised and seemed almost reactionary after a while." It was his band's intention to continue to break boundaries on a steady and continual basis. Listening to this very well mastered collection, that's exactly what the group does. Experimentation is the priority with many forms of musical exploration considered from more melodic electro and electronic to some positively scary noise that has you hiding behind the sofa. The box set also contains some previously unreleased, early eighties tracks. A sonic discovery — well worth the entrance fee.
Enjoy your precious records more with Michell turntables

Michell Engineering represents traditional British craftsmanship. For over 30 years, the family-owned business has hand-crafted exquisitely engineered turntables, designed to extract the wealth of information buried deep within the grooves of vinyl records.

When you invest in a Michell turntable you can be certain that the company’s founder, the late John Michell, was personally involved in its creation.

The Michell range includes the Gyro SE, Orbe SE, TecnoDec, TecnoArm A and HR Power Supply.

GYRO SE
Based entirely on the GyroDec, but without the costly acrylic plinth and dustcover, the Gyro SE brings the same qualities in a more affordable and compact package. A Gyro SE can always be converted into a GyroDec by purchasing a plinth and dustcover.

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Visit the experts in home entertainment
Here’s your chance to win an exceptional pair of small speakers—Spendor’s superb S3/5R mini monitors—in this month’s great giveaway!

Here’s what Paul Rigby wrote about them in the December 2008 issue of Hi-Fi World...

"The diminutive Spendor S3/5R (measuring just 305mm high, 165mm wide and 180mm deep) is an interesting baby box. It’s a closed box design with two new drive units, the larger of which is the re-engineered bass/mid unit that sports a focusing magnet motor-pole extension. Cone material is what Spendor call ep39 ("engineering polymer") whereas, for the previous S3/5, Spendor utilised a simpler mineral loaded polypropylene. The new tweeter unit is a 20mm soft-dome model. Whilst matching the sound characteristics that fitted into the original S3/5, Spendor say that this new tweeter unit was fitted to improve the clarity and sweetness of the response. Using a synthetic polyamide material—or artificial silk—for the cone, the tweeter itself is a standard production item from SEAS with a tweaked specification featuring a modified dampening material. This, like the bass unit, feeds to two brass binding posts ready for connection by either banana or spade connections. You can also attach a bare wire cable, if you so wish.

Properly sited, I found them very impressive performers. With the accent very much on couthness and finesse. For example, even with the strident, peak-limited Sugarbabes song ‘Stronger’, which is almost unlistenable via my Quad ESL-57s, I was amazed how the Spendors took this track in their stride. The spitting, harsh treble was removed at a stroke whilst the upper mid-band was tamed and, for the first time, I could relax and enjoy the music. Bass exhibited admirable extension for such a small box, the lower registers showing that the S3/5Rs like to rock out and impressing me with its truly commanding and startlingly powerful performance. The Spendors give a sweeter rendition of more aggressive pop, rock, electronic and dance music—they will not disappoint!"

For a chance to win these great little speakers, just answer the following four easy questions. Send your entries on a postcard only by 31st December 2008 to:

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entries will be accepted on a postcard only

QUESTIONS

1. What does ‘EP’ stand for?
   [a] "engineering polymer"
   [b] "engineering purity"
   [c] "economy purpose"
   [d] "extra pretty"

2. What did the earlier S3/5 use in its mid/bass unit?
   [a] mineral loaded polypropylene
   [b] Kevlar
   [c] paper
   [d] carbon fibre

3. Which company makes the tweeter?
   [a] SEAS
   [b] Scanspeak
   [c] Focal
   [d] KEF

4. Paul concluded that the Spendor "will not" what?
   [a] "disappoint"
   [b] "impress"
   [c] "beguile"
   [d] "shock"

January Competition
Hi-Fi World Magazine
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London NW6 5LF
So, after 18 month's development the 'Servo Evolution' (SE) CD players and dedicated CD transport have finally arrived.

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Taiwan is a place I know little about, so being eternally curious about exotic Far Eastern places I bought a ticket from their national airline, Eva Air, and flew out recently to see a hi-fi show in the capital, Taipei. Little did I suspect I would end up listening to a unique British loudspeaker all but unavailable in this country, intrigued by its sound. Nor that I would find myself eating bamboo fungus, a delicacy the Chinese of Taiwan seem to enjoy, or so I was told. To make matters even more interesting I had trouble getting to the show because of riots - which is something of a first!

The riots, perhaps better described as violent demonstrations, I am happy to say were nothing to do with either me or the hi-fi show. They were directed at a Chinese delegation with either me or the hi-fi show. They were interested brands I had never encountered.

What a surprise to see Podium sound loudspeakers, from the U.K. (www.podiumsound.co.uk), looming large in an open area beside a corridor. With room to breathe these big NXT (sort of) style panels sounded delightful - all of a piece, completely lacking discontinuity of tone or phase, superbly clean and easy on the ear in a manner that is an object lesson on what we could achieve in high fidelity loudspeakers - if only...

Yes, there's always a caveat and there are in fact quite a few associated with panels driven by exciters, including size and cost in Podium’s case. Low bass was weak too, but all the same they drew admiring crowds - and lots of puzzlement when listeners wandered around the back to see what was responsible for the sound - apparently nothing! This was the source of much head scratching and long drawn out “ahhhs”. I quickly explained how this was an NXT that wasn’t an NXT (it falls outside the patents), with room to breathe these big NXT (sort of) style panels sounded delightful - all of a piece, completely lacking discontinuity of tone or phase, superbly clean and easy on the ear in a manner that is an object lesson on what we could achieve in high fidelity loudspeakers - if only...

Taiwan is home to a swathe of Chinese and Taiwanese hi-fi that hasn’t yet made it to the West; I spotted many brands new to me and currently unavailable in the U.K.

As I have noted before, the Chinese generally take valve (tube) amplifiers more seriously than we do, and they constitute a greater part of the mainstream hi-fi market there, so I wasn’t surprised to spot yet more of them at this show, from Dared, Cayin and Original, adding to the little known brands like Audiospace and Xindak. I saw only months ago at the Kuala Lumpur AV show. But Taipei isn’t KL by any stretch of the imagination; it is far away and very different, as any Taiwanese would be quick to point out (they did!).
Total Funk Up!

Funk Firm are well known for breathing new life into classic record players. Now they are offering to transform a long-lived classic, Linn's Sondek LP12. Andrew Harrison goes for a spin...

While the Funk Firm has a thing or two to say about making its own turntables, it's also wise enough to realise that there is a huge market in maintaining and improving upon a record player that's been in continuous production for over thirty five years.

The engineering genius behind the Funk Firm is one Arthur Khoubesserian, co-founder and chief designer of Pink Triangle Projects Ltd. This maverick company challenged the pervading flat-earth acceptance of the Sondek through the 1980s with a number of innovative record players, using what were then unusual materials such as acrylic for platters and Aerolam (a very light and stiff sandwich of honeycombed aluminium) for the subchassis. And Pink Triangle didn't build its iconoclastic turntables just to be different from the rest of the pack. It understood the underlying physics behind the unassailable Linn deck, what made it work as well as it did, and what its intrinsic flaws were. Even back then, Pink Triangle made headway by designing around some of the deck's shortcomings with a number of upgrade packages, notably the Pink Link [see DRIVING boxout].

Stepping forward to the twenty first century, an almost bewildering combination of Funk upgrades are now available for the LP12, starting with a new DC drive motor, followed by an intriguing drive pulley system, a carbon-fibre top plate and armboard, plus a platter mat made from a patented foamed plastic. In the last few months, we've even seen a Linn Ittok tonearm rebuild project. These upgrades can be applied individually or in combination, with the latest fully Funked LP12 deck being the object of this review. We will look at the Ittok tonearm mods specifically in a subsequent review.

LET THERE BE FUNK

The Funk Firm emerged in 2005 with a way-out looking deck in the Funk Vector V. Beneath the platter of this lightweight skeletal deck lay a novel drive system that used three pulleys to drive the platter. The motivation behind this unusual arrangement was to better vertically locate the bearing spindle, and prevent it rubbing against one side of its sleeve, said to be an unavoidable effect of having a single motor pulley pulling the platter towards it via an elastic rubber belt. With three pulleys spaced...
around the inner platter, there's no bias towards a single pulley, so you can be sure that the principal point of contact in the pivotal bearing assembly remains the bearing point right at the bottom of the spindle. In effect, this Vector drive system, as the Funk Firm calls it, aims to reduce any eccentricities in the spinning platter. The analogy used by the company is that of a spinning ballerina who is now safely supported around the waist by the hands of her partner. The potential benefits of the setup include reduced bearing wear and reduced bearing rumble.

There's more to this system than just adding a couple of passive pulleys equidistant around the circumference of the inner platter, though. The Funk Firm's unique and patented arrangement sees the additional pulleys positioned, not at the obvious 120 degree positions, but irregularly at something closer to 110 and 130 degrees relative to the motor pulley. Likewise, they are not spaced equally at the same radii as the motor pulley from the common centre, but are sited about 4mm further out. Why the irregularity? According to the Funk Firm, although the resultant positions are neither equiangular nor equidistant, the relevant vectors act about the bearing and still sum to provide stability of support to the inherently noisy devices, generating unwanted vibrations that get passed to the platter either through the deck's chassis, or even when tamed by mounting them on a separate construct to the platter bearing, then through the rubber belt itself.

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10 AUDIO REVIEW

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Holger Barske Lp magazine 2/2008

"the whestTWOS sonic presentation produced an organic wholeness and overall balance that were difficult to fault"
Michael Fremer Stereophile 7/2008
to play without wow or flutter, perhaps all the more intrusive now in this digital world with listeners unfamiliar with warbling cassette tapes and fluttery records.

Where AC motors have their speed fixed by the frequency of the alternating current – accurate enough that clocks can be run from them, locked to the fixed 50Hz cycle of the UK mains – DC motors require a little more care in regulating their revolutionary behaviour. More so than the AC motor which can be run from the mains with little more than a few passive components (or better yet through a quartz-locked sine-wave generator), the DC motor and its power supply must be designed around each other, often with some kind of feedback servo to prevent speed drift.

In the case of the Funk Firm’s solution, there is the K-Drive power supply which keeps an ironless DC motor spinning with constant revs, helped by a slow-acting current feedback servo. Its temperature compensated, and the front-switchable 33.3 and 45rpm speeds can be fine-tuned by two trim pots hidden behind small holes on the outboard box’s front panel.

With the problem of finding a quiet no-vibration drive motor solved, a new possibility is suddenly open to the adventurous turntable designer – mounting that motor on the same platform as the tonearm and platter. This neatly sidesteps another bane of the traditional deck, described by the Funk Firm as phase distortion, caused by fine movement of the platter dampener of choice over rubber.

In contrast to the simple Achromat mat exchange, fitting all the Funk mods for an LP12 is not a straightforward job. Just as with any overhaul of the Sondek, the operation requires some specialised tools and skills, so is best carried out by a qualified dealer or an enthusiast with patience and close familiarity with the workings of the Scottish deck.

You can buy separate parts for the rebuild, or as a complete kit for £1,670, and the work may be carried out by a suitable dealer or by sending your LP12 directly to the Funk Firm. It’s worth noting that the modifications are entirely reversible as new parts slot into the places designed for old.

SOUND QUALITY

I rebuilt one of my two Sondeks with the full kit, changing the subchassis to the Charm (CHassis + ARMboard) version when it became available. It’s interesting to note that, after the latter refit, the deck initially sound overly fierce and unrelenting, and qualities, making it a dependable platform to unite the key turntable components of platter bearing, armboard, and now, motor. It’s still spring-isolated from the deck’s plinth, using regular Linn springs and grommets. But instead of hanging the suspension from the original stainless steel top plate, the Funk LP12 takes a carbon-fibre version called the Clarity which, along with the matching carbon-fibre sandwich armboard now glued and bolted to the subchassis, gives the Funk LP12 a dark and stylish demeanour that instantly elevates it from its nineteen seventies country cousin.

The final part of the deck’s metamorphosis is the Achromat platter mat. Like the acrylic platter principle for which Pink Triangle was awarded a patent in the early 1980s, Achromat aims to reduce ricocheting resonances carried around the record from, for example, needle vibration, by matching the vinyl disc to a supporting material with similar acoustic properties. The trump card of the Achromat is that with the help of its foamed PVC structure carrying a ‘plurality of voids’, it is a more efficient sink for transmitted vibration, so can be reduced in thickness from the 20mm-plus necessary for a full acrylic platter, to 5mm or less. By which time, we can just call it a mat, and use it to replace the traditional black felt that Linn users have used to carry their records ever since cloth became the platter damper of choice over rubber.

One of the benefits of old-school analogue audio is the scope for tweeking – especially so with mechanical systems like turntables, where seemingly innocuous tweaks can make allmighty differences. One of the richest seams of potential improvements that can be made is the motor and its power supply. Changes made here are often very far from subtle. Debate still rages as to the best motor for any given turntable – some prefer the sound of a torquey AC motor, others the quietness of DC. In the case of the Linn Sondek, most after-market tweeks have focused on getting the best from the fitted Airpax AC synchronous motor. There are two ways we can improve on the barebones drive system found on 1970s Sondeks – which used a resistor to drop mains voltage to around 100V, and a capacitor to give a 90 degrees phase shift (necessary for half the poles of this 24-pole AC motor). First, we can lock the motor’s speed to its intended 250rpm by engineering a fixed 50Hz AC feed. In practice, UK mains current can fluctuate through the day, although short-term ripples may be less common, but this hasn’t stopped many designers choosing to regenerate the correct frequency from first principles. More crucial is the purity of the sine wave feed, as any harmonics on the motor’s power will induce more frame vibration.

Popular solutions over the years include Naim’s Armaggeddon power supply, effectively a passive device using a large toroid transformer, and Linn’s own Vshalla and Lingo power supplies. These both used quartz-locked generators and small power amplifiers to create an output of around 90V. The Lingo was a smarter device using a higher output to get the platter spinning, which was then dropped to around 85V to minimise vibration.

And from Pink Triangle there came the Pacesetter, an external AC power supply which later developed into the Pink Linnk, a more rigorous modification of the Sondek, replacing the top plate and moving the motor to the vaunted 7 o’clock position. A DC motor option was also offered around this time. Current Funk Firm mods are a major expansion of those early Pink Linnk ideas.
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Rather remarkably, there is a component in my hi-fi rack that somehow managed to assume an air of smugness. Now I thought this was not possible for an inanimate object but it has definitely happened — the glow of the green power LED has taken on an air of self assuredness over the last year or so and, frankly I am getting to the stage where I can't help thinking it could do with bringing down a peg or two...

The item in question is my Anatek MCI phono stage, which astounded me with its brilliance when I first reviewed it, and has continued to see off competitors bearing price tags of up to two or three times its own ever since. However, for the first time, I saw a definite flicker of concern in that smug LED this week, when I opened the box containing Whest Audio's new phono stage, the PS.30R, front and center.

Frankly, I had the feeling that if anything was going to unsettle the MCI, then something from Wheast might just do the trick. Wheast's James Henriot is well versed in electronic design, thanks to his background in the recording industry and long-standing history of designing professional and domestic audio equipment. Consequently, he is a chap who knows a thing or two about electronics and, in particular, phono stages and when he announces a new one, the sensible ones amongst us sit up and take notice.

The PS.30R is based on the flagship two-box, £5,000 MC REF V, which has been effectively scaled down to produce a more affordable single box solution, but one that still offers a goodly proportion of the REF V's performance; in fact Wheast modestly claim that they were aiming for £5,000 performance in a £1,600 package — and reckon they've done it. We'll see...

Most notable on first encountering the PS.30R is its highly impressive build quality. Wheast are rightly proud that the finish (and all their designs) are built in the UK, and no quality has been scrimped at all. As an example, the fascia is an extrusion of Wheast's own design, and James Henriot has snapped up a quarter of a ton of it, so there shouldn't be a shortage of PS.30Rs in future days! The PCB uses ultra high purity copper throughout, and is populated with the likes of Vishay metal film resistors and polypropylene film capacitors, fully matched transistors and low ESR Panasonic capacitors in the power supply. The mains transformer is a highly specified item and even has its own winding for driving the power LED, so that this does not impinge on the audio signal in any way.

The PS.30R is an op-amp based design, using a differential input stage and a hybrid passive/active RIAA filter for equalisation. The unit also uses a fully discrete output stage with an output impedance of 50 Ohms, so that it can drive long interconnects without difficulty. Internal DIP switches offer a range of cartridge loading, including 47k Ohms for MMs and five settings from 50 ohms to 1.6k Ohms for MCs. There is also the option of adding a 'User' load value if your cartridge is a particularly oddball one, and Wheast are happy to offer advice on how this can be set up to your requirements.

A second set of DIP switches select six gain options, ranging from 40dB for MM cartridges, to 72dB for the lowest output MCs, which is also ideal for driving passive preamplifiers. Unfortunately, like the Whest Two, these DIP switches are hidden away inside the case, requiring the wielding of a supplied alien key to whip the lid off for access. Of course, this will be a set and forget process for most owners, but for reviewers with various cartridges, it's fiddly.

Connection-wise, the PS.30R offers a single pair of phono inputs, plus a pair of phono outputs and a pair of balanced XLR outs, plus strict notes not to use both at the same time.

The unit weighs in at 2.6kg and measures 83x480x300mm, and comes complete a good quality phono to phono interconnect and a phono to jack plug lead, for connection to a computer soundcard if you must do something silly like digitising your LPs [Adam - you know not what you say! Ed].
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ROKSAN ATTESSA II CD player. Unique styling, battleship build, superb sound quality, virtually mint condition, serviced by Roksan 26/08/08 (receipt). Instructions, remote. Audition welcome. Cost £1500. Selling £450. Tel: 07747 697414 or 01702 420 388

ROTEL RA-05 amplifier / RCD-06 CD player. Latest models in black, fully boxed, absolutely mint, less than half price! £325 includes postage. Lee West Midlands 01384 412234 Email: lee-t@lycos.co.uk

DYNAVECTOR KARAT 17D2 moving coil cartridge. Unwanted gift. Boxed as new. £150 ono. Tel: 01929 480 181 after 6pm

QUAD CD67 one owner, requires loading tray repair otherwise working. Offers. Email: alanwells2008@gmail.com

ICON AUDIO STEREO 50 valve amp, Jensen Caps £1500 sell £800. Marantz PM4001 S.E. amp £120. Mission 781 speakers £150. Marantz Super Audio CD/DVD Player 1252 £650. Soundstyle speaker stands £45. All mint. Tel: 079908 33329

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E.A.R. 124 valve mono block amplifiers, Croft special valve pre amplifier, Lectro valve pre amplifier, matching two box valve CD player, Cabasse 1000 watts mono amplifiers, Sugden phonostage. Please telephone for prices. Tel: 0208 524 2181

TWO SOUND supports from Stands Unique 720x420x565 each with an extra shelf. Also isolation platform light ash legs £175 each or the two £300. Tel: Len Wood 01702 558557 (Leigh on Sea)

NAD C160 pre amp. Superb condition with original packaging, instructions, remote. Used in a child, smoke, pet free home. Could deliver or post insured carrier. Collection welcome. 01782 397204 07884 430988

MARANTZ CD6002 CD player £140 (£270). Multi award winner, latest model, fully boxed, in excellent condition. Genuine callers only, no more time wasters please. Lee West Midlands 01384 412234

WANTED: MARANTZ CD6002 CD player. £140 (£270). Multi award winner, latest model, fully boxed, in excellent condition. Genuine callers only, no more time wasters please. Lee West Midlands 01384 412234 Email: lee-t@lycos.co.uk

WANTED: PIONEER DV 868Ai DVD-SACD player (any model) players must have i-link (firewire) output. Tel: 01782 256087

PINSHER SPEAKERS wanted ideally Pinsh 1 in walnut but will consider other models. Would also consider Kimber Naima or Usher BE718. Tel: 07813705077

WANTED: PIONEER DV 868Ai DVD-SACD player (any model) must have i-link (firewire) output. Tel: 01782 256087

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MUSICAL FIDELITY Nu-Vista 3D CD player in mint condition and owned from new, boxed with manuals, controls £1,100 ono. Sound Organisation 5 tier rack £100 in excellent condition. Tel: 01303 863424 (Kent)

WANTED: PAIR of tweeters any make/model considered, no ribbons. Also wanted TO3 type NPN power transistors, need at least 12 of the same type and brand. Tel: 07779 199 392

SUGDEN A21aL pure class-A Amplifier, excellent condition, factory serviced, original packing, £425. Tel: (01403) 255153 (West Sussex) or email: richermail@aol.com

PIONEER DV-575A SACD/DVD-A/CD/DVD player. Silver. Hardly used. Boxed. £70. 01484 865442 (West Yorkshire)

MERIDIAN G51 receiver. Silver. Perfect condition. FM/AM version. Boxed as new. MSR+ remote. All accessories. £1195. Located near Horsham, West Sussex. Tel: 01403 823412. Email: simonc oxall@yahoo.co.uk

FREE READER CLASSIFIEDS

GUIDELINES FOR BUYING AND SELLING SECOND-HAND EQUIPMENT

FOR THE BUYER
1. Not everyone is honest - Buyer Beware!
2. Don't send cash!
3. Accept no verbal guarantees.
4. Have you heard the item or something similar? If not, why do you want it?
5. Don't pretend to have knowledge - it's your fingers that will get burn't!
6. Is it working? If not, why not? Can it be repaired and if so is it worth it?
7. Has it been modified and, if so, have notes been kept?
8. Was it any good in the first place?
9. Don't send cash!
10. If you are in the slightest doubt, arrange an audition (see point 5) If it's too far, wait for another time.
11. Either buy it or don't: vendors are excusably impatient with 'consultation' exercises.
12. Don't send cash!

FOR THE SELLER
1. Not everyone is honest - Seller Beware!
2. Make no verbal guarantees.
3. Even 'nearly new' is still second-hand. If the manufacturer's guarantee is no longer in force, your price should reflect this.
4. There is very little intrinsic value in second-hand hi-fi; it's only worth what someone will pay for it.
5. The best guide to pricing is last month's Classifieds: that a 'classic' was worth £xxx a year or two ago is no guide.
6. Values fall as well as rise.
7. Amateur second-hand dealing is not a big money game: you win some, you lose some.
8. Be prompt with despatch. If in doubt about buyer's bona fides, either wash out the deal or send C.O.D.
9. There will always be time-wasters; be tolerant within reason!
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Classifieds

When a classic goes 'pooof' your troubles have just started, but there may be a good ending. Replacing failing parts can improve the sound, so here is a short listing of all those companies who specialise in getting a classic up and running again after it has been sold a small ring of soot on your ceiling.

**CLASSIC CONTACTS**

**When a classic goes 'pooof' your troubles have just started, but there may be a good ending. Replacing failing parts can improve the sound, so here is a short listing of all those companies who specialise in getting a classic up and running again after it has been sold a small ring of soot on your ceiling.**

- **MUSICAL FIDELITY A5 dual mono integrated amplifier £950. Musical Fidelity X-LPS v3 stereo phono pre-amp £180. Both mint, boxed. Buyer to collect. (Built World Design pre & power amps) Tel: 0115 975 4070 (Nottingham)**
- **QUAD 303 amp, 33 preamp, FM3 tuner £180. Quad 405 amp, 44 preamp, £180. I.D.L. monitor speakers on Target Audio spiked stands. Can be filled with ballast. £80. Tel: 01254 51295**
- **PROAC RESPONSE ISC £500. Quad 12L £250. Tannoy Chester 1978 loves valves £350. Partington Dreadnought Ultima, flagship stands, very heavy, solid, cost £330, £150. All no offers. Tel: Darran 07876 705266 (Huddersfield)**
- **LOCKWOOD AUDIO (London) Tannoy Loudspeaker parts, restoration and repair. Also Epos and TDL loudspeakers. Tel: 020 8 864 8008 www.lockwoodaudio.co.uk**
- **ORCRAFT AUDIO (Terry O'Sullivan, Bucks) Garrard 301/401 and their own 501, repair and service. Tel: 01488 722670 www.garrard301.co.uk**
- **CLASSIQUE SOUNDS (Paul Greenfield, Leicester) ESL-57s restored, rebuilt, fully renovated. Fully improved. Leak, Quad valves etc. Tel: 0116 213 3137 Mob 0116 2835821 Email: classique_sounds@yahoo.co.uk www.flashbacksales.co.uk/classique**
- **REVOX (Brian Rees. Cheshire) Revox tape recorder spares, service and repair. Accessories also available. Tel: 0161 499 2349 Email: brian@revoxservice.co.uk www.revox.freeserve.co.uk**

**FREE READER CLASSIFIEDS**

**WANTED: CONCORDANT Excelsior valve pre-amplifier, cash paid for mint example with or without wooden sleeve, please send details to aasm_1@yahoo.co.uk**

**WANTED: NAKAMICHI CR-7E cassette deck. (preferably mint/excellent condition). Contact Simon on 07759205820 or 01483 271669 (evenings) e-mail s.banks@surfroute.ac.uk**

**WANTED: NAKAMICHI CLASSIC CONTACTS**

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NEXT MONTH

We'll be bringing you a happy hi-fi new year, with a great range of kit for your perusal. As ever, there's our famous mix of the new and the old, the great and the good - for example we look at the latest Kingsound Princess II hybrid electrostatic loudspeakers, and revisit the classic Quad ESL63s. Analogue addicts will love our review of Thorens' top TD550 turntable and the feature on Jelco's Sumiko MM-T-inspired SA-250T tonearm, while digiphiles mustn't miss our review of Audio Logic's vacuum tube powered 34MXL DAC. Here's just some of what we hope to bring you:

Audiologic 34MXL Digital to Analogue Converter
Robson Acoustics Greystoke Loudspeakers [pictured]
Lehmann Black Cube Statement Phono Stage
Olde Worlde Quad ESL63 Electrostatic
Kingsound Princess II Loudspeakers
System Fidelity SA300S Amplifier
Cyrus CD-XT SE CD Transport
Neat Motiv 2 Loudspeakers
Guru QM10P Loudspeakers
Thorens TD550 Turntable
Adam HM3 Loudspeakers
Pioneer PD-D9 CD Player
Tangent Duo DAB Radio
PMC GB1 Loudspeakers
Jelco SA-250T Tonearm
Roksan K2 CD Player
T+A Caruso System

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## FREE READER CLASSIFIED ADVERTS COPY DEADLINES

- **February 2009 - 4th December**
- **March 2009 - 5th January**

[Website](http://www.hi-fiworld.co.uk)
I’ve known David Gilmour since I was sixteen. He was a friend of my brother, who was at Cambridge — I was still at school. I was brought up in Cuba and Venezuela and was later sent to boarding school in London. I started playing guitar at this point and I wanted to become a professional musician. My brother said, “Well I know this guy who’s just about to join a band. He’ll soon be a professional musician, let’s go and talk to him and ask him how you do it.” That was David and he was just about to join Pink Floyd. Neither of us can remember what he said but, David later commented to me that, “It must have been good advice because you ultimately joined Roxy Music!”

So says Roxy Music guitarist and producer of this magnificent live album, Phil Manzanera, who kindly agreed to talk to Hi-Fi World and bravely spluttered through a bad cold. Manzanera in fact plays guitar on this live album, one of the most elaborate live releases there has ever been and a snapshot from David Gilmour’s recent tour, his gig in the Polish town of Gdansk. Gilmour was invited to play there by the former Solidarity movement to celebrate their 26th anniversary.

Forget the concluding paragraph and let’s cut to the chase, I would rate this live album — in its entirety, as the best live album there has ever been...”

I would rate this live album in its entirety, as the best live album there has ever been...

additions such as video coverage and web access but David Gilmour has truly surpassed himself both in how he performed his work with some of the best guitar playing in many a year, imaginative arrangements of old standards and his support for true Pink Floyd fans. For example, the DVD and vinyl versions of the set feature highlights from the expected Pink Floyd covers including the much neglected ‘Wots Uh The Deal?’ from ‘Obscured By Clouds’ and the only recorded gig version of the superb track, ‘Echoes’. You also get a complete live rendition of Gilmour’s latest album, ‘On An Island’ and how miraculous it is too. Compared to the studio release, the live set of the album positively springs into life with far more verve and energy.

The album itself arrives in a dizzying array of formats. “Who knows if we’ll ever tour again. So let’s give them everything we’ve got in one go and not dribs and drabs and in any form they want,” said Manzanera. On CD, there are four versions available and packaged in a fold-out digipack. The standard 2CD version presents the footage of the last date on Gilmour’s 2006 summer tour in front of 50,000 people at the Gdansk shipyards which was the only occasion on which David performed the tour material with an orchestra, using the forty-strong string section of the Polish Baltic Philharmonic Orchestra.

It was important too, because it was the only show of the tour to contain the song ‘A Great Day For Freedom’, from Pink Floyd’s 1994 album, ‘The Division Bell’. However, it was mostly important because it may be the final recorded performance of Floyd keyboard player Rick Wright, who recently died of cancer. During this gig Rick was unaware that his health was in danger.

The three disc version adds a DVD that features most of the Gdansk gig alongside a documentary whilst a four disc version adds a second DVD packed full of TV appearances plus the ‘On An Island’ album in 5.1 surround sound. Finally, a five disc version (i.e., three CDs and two DVDs) adds a CD of tour highlights. The vinyl version arrives in a large, pizza-type box featuring the complete concert on four LPs with an extra LP that features a selection of audio tracks from the DVD extras. You also get a web pass to download the LP’s audio tracks as MP3.

Phil Manzanera should be congratulated for his production work on this album and his support for the exploration of sound quality before mastering for both vinyl and CD. “We recorded onto two inch tape and then onto digital via Pro Tools. We made sure that the music retains a full dynamic range. Everything David does is done properly – the old fashioned way,” said Manzanera. And it shows, to be frank, PR.
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