

HIFICRITIC



AUDIO REVIEW JOURNAL

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REVIEWED THIS ISSUE:

MERIDIAN DSP 7200

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CREEK DESTINY

PS AUDIO TRIO C100

SUGDEN A21A SERIES 2

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AKTIMATE MINI

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It's interesting to look back and notice how much our hi-fi magazines have changed over time. When I got my first job on a hi-fi magazine, as Features Editor on *Hi-Fi News & Record Review* way back in the mid-1970s, everything was mono (-chromatic not -phonic), and the equipment reviews, considered of minor importance, were tucked away near the back of the magazine with virtually no references to sound quality.

One could suggest that the *Hi-Fi News* of the time had got stuck in its hobbyist past, and not really come to terms with hi-fi's transition to a consumer mass market which had started in the early 1970s. Since its birth in 1956, *Hi-Fi News* had had the hi-fi scene to itself, but rivals started appearing in the late-1960s, and the goalposts started moving.

I well recall two facts emerging soon after I joined. The first was that a readership survey had revealed that the equipment reviews were actually the most popular part of the magazine. The second was that the circulation figures for *What Hi-Fi* had just overtaken those for *Hi-Fi News*. (Both were selling around 55,000 copies a month at the time – happy days!)

That said, *Hi-Fi News* still had the respect of the industry, and the stimulus of competition was probably valuable, as I believe the second half of the 1970s – John Atkinson, current Editor of *Stereophile*, joined a year after me, while John Crabbe provided a steadying influence on our possible excesses – may well have been the most creative period in the magazine's long history.

Hi-Fi for Pleasure had actually set the equipment review agenda, introducing multi-component group tests by reviewers like Martin Colloms and Stan Curtis that were as much features as reviews and formed the centrepiece of each issue.

Hi-Fi Choice (which I joined as Editor in the late 1970s) took the group test to its logical conclusion. The little A5-size editions comprehensively examined a single component type, with reviews of maybe 50 models and plenty of background feature material. While the 'one topic' approach allowed considerable investigative depth, it was also something of a straightjacket – one reason why I enjoyed re-launching *Choice* as a regular A4 monthly at the end of 1987.

Give or take a few ups and downs, hi-fi's boom years ran through most of the 1970s and 1980s, with healthy circulations and advertising revenues. Things have become progressively tougher since then, especially since the arrival of the internet, but it's a testament to the staying power of the hi-fi hobby and passion that the UK still has six 'on-paper' hi-fi magazines today, and each has established its own distinct identity.

Equipment reviews remain the core element of all the magazines, but the hi-fi market never stops evolving, and magazines must reflect this to retain their readership. To my mind the current strength of the 'high end' and weakness of the broad mainstream indicates that much of hi-fi is reverting to its pre-mass-market enthusiast-led state. While *HIFICRITIC* will continue to include plenty of equipment reviews, it will also have a generous allocation of the sort of features which I believe fellow enthusiasts will find interesting.

Paul Messenger

Editor

The Gentle Giant

MARTIN COLLOMS GETS TO GRIPS WITH WILSON AUDIO'S LARGE AND HEFTY MAXX SERIES 3

MARTIN COLLOMS

Reviewing any Wilson Audio product is a challenge, as there can be no doubting the seriousness of the Wilson undertaking, the commitment of its design team, and the international profile of the company. Furthermore, the larger models, which can weigh a ton when crated for delivery, pose inevitable logistical difficulties when installing them in my listening room, which is awkwardly located 1.5 stories above street level.

Without question a serious effort was being made by the manufacturer, the local agent and by the supporting acts, with extra cables, players, pre and power amplifiers. Some of it was pure theatre, groups of strongmen struggling to get the massive bass systems upstairs, others organised like ants: placing, connecting, aligning, calibrating. The Man himself was coming too, flying in from a still snowy Utah, to satisfy himself that what should be done had been done, reflecting his personal, and very effective critical approach to optimised loudspeaker placement, making doubly sure that his latest creation could stand fairly on its merits.

Make no mistake the *MAXX* series of speakers has been a serious undertaking. It is more than a decade since I examined the first two of the series, and Wilson Audio must have great confidence in this new *Series 3* model since my reviews of the previous ones (*Series 1* in *Stereophile* and *Series 2* in *Hi-Fi News*) were not particularly enthusiastic.

My conversations with loudspeaker designers show that they are invariably very concerned that their message might not be understood. And that their approach, criteria, judgement, balancing and voicing of what is necessarily a compromised collection of a electromechanical parts installed in an enclosure, and which may well represent the culmination of decades of electroacoustics research thinking and practice, will deliver on the day. If a failure was due to a lack of final care, then years of effort might be dismissed in a critic's acerbic aside. Founder designers can sound almost messianic, teaching a developed technical viewpoint regarding realistic sound reproduction.

While it is understandable that a designer wants to be sure his creation was done justice, it begs the question of fairness for products which are less assiduously stewarded into a critic's lair. Reviewers do try to second-guess the best combination of equipment and optimal locations for all loan speakers. Yet the more concerned and conscientious review installers will unavoidably have some impact

on the outcome, despite an author's efforts to level the review field.

Looking up at these tall, superbly lacquered, prismatically tapered towers in their automotive quality metallic paint finish, one can see the parallels between this finely crafted audio component and a similarly priced Porsche. Whereas one might provide physical thrills and exciting journeys, the other will supply repeatedly rewarding musical experiences over the long haul.

This new *MAXX* costs rather more than before (about £60,000 UK) and while earlier versions could be upgraded, the changes for the *Series 3* are so great, upgrade is now impossible. (A buy back scheme of limited duration is currently available for earlier *MAXXs*). There is even debate as to whether it should be called a *MAXX* at all, since its technology derives more from the flagship *Alexandria* than the *MAXX Series 2*.

Technology

This five-driver three-way loudspeaker is fed from a solitary pair of heavy duty, gold-plated copper, wrench-tightened terminals. High power handling, sensitivity, and maximum sound levels with low distortion are available from large, sensitive drivers working in a large enclosure – the bass section alone is around 150 litres. The whole enclosure is built from Wilson's densest X-type low-resonance panel material, which partly accounts for the massive weight, and all three enclosures are substantially braced internally.

The main crossover is now set high in the bass enclosure for more convenient connection to the two head units housing the midrange and treble drivers. A substantial alloy cover plate, fixed with multiple machine screws, may be opened to reveal a patch-bay where alternative power resistors may provide subtle changes in tonal balance according to the system and location. Their fusible nature means that if the system is overloaded these resistors protect the drive units and may be replaced quite easily.

The alignment spikes for the head units are now anodised aluminium for improved contact damping, while the main floor spikes are stainless steel. The head units avoid parallel surfaces and are reflex loaded to optimise their alignments. The lower head unit is fully articulated and also has improved acoustic loading for the tweeter. The uppermost head unit is further articulated, located via heavy duty clamps, to allow for critical time



alignment with the array below. The complete top section is calibrated for the chosen listening height and distance according to the very detailed instructions. In addition to the diffraction reducing geometry, facing surfaces and related cavities are now lined with absorptive felt, minimising stray reflections and resonances.

Milled from solid alloy, the port is 13cm in diameter, 31cm deep, and tuned to a low 23Hz. Measured -3dB points were at about 11Hz and 43Hz, with no significant upper resonant breakthrough. The two custom-made, cast-frame, Focal-sourced bass drivers, nominally 11in and 13in diameter, have huge magnets and very rigid glass sphere reinforced pulp composition cones. The two Wilson-designed, Scandinavian built 6in midrange units have carbon reinforced pulp diaphragms and special low distortion motors.

A low crossover point optimally blends the mid-treble-mid upper driver array. Refined over several generations the robust 1in (25mm) titanium inverted dome unit is driven at the first nodal circle from a 17mm voice-coil by a very powerful motor. Specific Wilson-designed back-loading is applied to the hollow centre pole.

Sound quality

First impressions were of a big hearted, sweet sounding speaker with an open, clean mid-through-treble, and firm, powerful and extended bass. The sound is fairly rich, and on first hearing sounds a bit slow, rather measured, with considerable gravitas.

With classical material it excelled right away providing a great sense of scale and proportion, taking a full symphony orchestra in its stride, while also revealing fine texture and impressive perspectives. Instrumental timbres on solo passages seemed very natural.

Fast rock appeared almost ponderous on first hearing, but then something good happens in one's head – a curious effect also noted by several other listeners – where the *MAXX* somehow shifts up a gear and starts to rock. It as if it has an individual accent, different from those smaller speakers to which you become accustomed, which required some temporary mental adjustment. And then your mind gets in step.

I'd not heard classic stadium rock replayed at this quality before, and it positively and unexpectedly sings on lead guitar while showing superior clarity and articulation on vocals. Yet there is no shout, no aggression, no added roughness or hardness, only that present in the source signal applied to its terminals, be it the equipment or the programme.

The speaker is not entirely free of coloration, with a mild thickening of texture in the lower mid – a mild 'woody' character. However, in my modest ceiling height room this correlated with an analysed floor-to-ceiling upper bass harmonic mode, and may not be present in other locations. However there is no shout, no edge, no harshness, just a slightly old fashioned 'paper pulp' cone 'voice', which was wholly musical in context; this rather academic criticism did not detract from the overall performance rating.

Treble was finely textured, clear and very revealing, but had virtually no character of its own, just as it should be. It only sounded less than natural when it was obvious that the source was at fault. The speaker recovers ambience and reverberation very well, making large recorded spaces sound suitably, er, large.

Jazz was excellent, sounding lively, rhythmic and expressive, with satisfying exposition of complex pattern syncopations. It laid an unstoppable beat, secured by stable powerful bass lines. Once it gets going you do not want to turn it off.

Once such an immovable product is installed, it is near to impossible to use one's normal speaker references for reviewing other products, which can make consistent published judgments more difficult to achieve. Not so with the *MAXX Series 3*; once set up they immediately proved sufficiently neutral and revealing for normal reviewing to continue, which is a very good sign of inherent and lasting quality.

Image depth was very good and I would expect it to improve still further in a larger room than mine, with more space to the wall behind the speakers. (Being 60cm deep, the backs of the *MAXX Series 3s* were actually just 40cm or so from the wall.)

Image focus was also very good. Specific images were not quite as sharp and 'narrow' as smaller speakers can deliver, but were still remarkable for this size, and again this will improve in larger spaces

with a longer throw to the listener. I was 13ft from each speaker and also heard surprisingly good results at 11ft, but focus will be still better at 15-18ft. Fine inherent timbre control meant that image height sounded natural with a recorded standing vocalist, a pleasing and impressive effect.

It's unquestionably transparent, revealing plenty of low level detail at all sensible sound levels, while a sense of consistent inner balance and timbre is also maintained with wide differences of sound level, giving a great feeling of harmony and stability without fatigue. Is this what big speakers are really about?

While the elegant silver grey grilles supplied with this speaker look just fine matching the metallic silver grey finish of our samples, and are well enough designed by conventional standards, this speaker's inherent potential is so great as to disqualify its grilles for critical listening. It's as well that they may easily be removed and replaced, though you will need somewhere to put them. Once optimally set up and aligned, adding the grilles not only dulled the sound, but blunted dynamics and slowed rhythms, confirming the intrinsic quality of the naked system. It isn't really terrible with grilles on, but in a top class set up it's just so obviously better without them.

Valves v Solid State

While these speakers are even tempered, they take no prisoners, and immediately revealed the strengths and weaknesses of three well rated power amplifiers. My own conrad johnson 350SA sounded very well and delivered powerful sound levels, but was a little soft in the bass and slightly constricted in the midrange.

Maximum sound level was clearly lower, maybe as much as 4dB with the Audio Research *Reference 200* monoblocks, *Reference 3* pre-amp, and matched Transparent *mm2* cabling, but the sound was spacious and delightfully fluid; musically relaxed yet with very good definition. Though not as tight in the bass as the conrad johnson, it was perhaps more revealing. The 8ohm tap subtly shifted the tonal balance and gave a little more headroom at the expense of some bass punch and extension; overall the 4ohm tap was preferred. Many customers will vote with their ears for such an Audio Research combination which rates with the world's best. (Mild fan noise at whisper quiet levels means these big power amps may have to be housed in a ventilated cupboard.)

But it was the physically silent Krell *600* monoblocks, *KrellCast* (Transparent) connected to a current Krell *202* two-box pre-amp which proved capable of taking proper hold of the *MAXX*s and really showing who was boss. I could

not fault this combination for extension, slam, speed, depth, clarity, focus (best yet), neutral timbre, treble balance and purity. I cannot say that the sound was 'solid state' in any negative sense, and the superb grip and effortless power brought out the best in these speakers. It seemed that we had previously been on skinny tyres, and had now changed to racing slicks. I can't resist noting the high standing power used by the Krells in standby, and still more in action: these 1,400W/ch (into this load), enriched current amplifiers clearly run close to Class A, so air conditioning would be mandatory in an English summer, they'd add significantly to its power drain.

Lab report

Measuring such big speakers in my listening room is a problem, especially one with a spaced mid-treble-mid array head unit, but I was pleasantly surprised to find that the new *MAXX* delivered smooth, well balanced responses almost anywhere I put the B&K microphone. It was uncanny, and I checked my measuring system to make sure there was no fault with display scaling or otherwise. Wilson Audio have been researching drive unit output integration for some years now, and the benefit has been more evident with each new introduction. Even here, where there is still considerable inherent technical difficulty, the smooth blend of frequency and phase across different angles and distances verges on the extraordinary.

The forward responses are very smooth and consistently well balanced, with an impressive +/-2.5dB 19Hz -20kHz listening axis result. By adopting the sensible concept of a part off-axis array angle for the optimal listener axis, the overall blend of 'on' and 'off' axis responses is now close to ideal, while the potentially uncomfortable on-axis hot spot is also avoided. As I moved the mike round to an extreme 60 degrees off-axis, the crucial mid-to-treble blend remained smooth and sweet, if mildly down-tilted with rising frequency – you cannot avoid the natural acoustic consequences of source size altogether. The off-axis responses are very nearly as good as the main axis.

It sounded smooth in my room and the measured in-room spatial average confirms it, giving a remarkably good +4/-3 dB 18Hz-11kHz result, room reverb weighted as expected, and with a sweet slow downwards tilt towards the practical 20kHz limit. This spatially averaged in-room curve mirrors the remarkably uniform on- and off-axis responses, and I have never previously measured such deep bass.

With accurate free-field measurement out of the question, I did squint around the various driver

“While these speakers are even tempered, they take no prisoners, and immediately revealed the strengths and weaknesses of three well rated power amplifiers”



Photo by Roger Crocombe

outputs, and worked with what data was available. Helpfully, the mid and treble can be selectively muted *via* the rear connectors. The bass-to-mid crossover point is set really low at about 100Hz, thanks to the substantial power handling capacity of the twin midrange driver combination.

These run up to about 1.5 kHz, well before directivity narrows, with an exceptionally smooth +/-1.5dB intrinsic output, a well controlled 12dB/oct slope, and decay response tailoring. Likewise the powerful and efficient high frequency unit facilitates this desirably low crossover point, also with a pure second-order acoustic alignment. In conjunction with usefully wide intrinsic driver bandwidths and time alignment, the design delivers very good blending of the driver outputs in the acoustic space. Directly on the tweeter axis the output peaks only mildly, by 5dB at 22kHz, a feature not present on the listening axis. Mild secondary resonances, down 10dB or more, are visible up to 40kHz.

I found the grille cloth was transparent but the frames do add mass and some diffraction. The 'grille-on' errors were a mild +/-1dB below 2kHz, increasing to 2dB of attenuation 3-5kHz, with an isolated 10dB notch at 6kHz, and some loss at 13kHz.

Nearfield measurement showed that despite the disparity in swept area the two bass drivers share the reflex load well in proportion to their size while the huge port delivers clean high power at a low 23Hz tuning point, extending the in-room response to about 16Hz. While reflex systems are generally not as 'fast' as sealed boxes, the associated problematic group delay does reduce with increasing low frequency extension and thus the much extended bass bandwidth of this design confers somewhat lower group delay in the

audible range. I did not drive the bass systems to full power since my window and panel structures were complaining somewhat before maximum. However, low frequency quality and distortion were exceptionally good, as they should be for this price and size. The latest tweeter is outstanding, with about 0.05% total distortion at 3.3kHz even up to 100dB spl. At 9 kHz it was still very low: 0.04% for 90dB, 0.14% for 100dB. Even at 1kHz where both mid and HF sections are working hard, 90dB spl came in at 0.11% and for 100dB, 0.28%. Here second and third harmonic content was similar.

In the 330Hz midrange power band the 90dB spl result was a fine 0.15%, while when pushed to 100dB continuous, second harmonic rose to a still very good 0.5%, while third remained at a very low 0.05%. While lower frequencies inevitably resulted in more distortion they remained below audible thresholds, eg for 100dB, 100Hz, I measured 0.3% of second and 0.05% of third harmonic. Subjective distortion was also low, even at a massive 110dB spl, from an amazingly low 21Hz and upwards; 106dB at 23Hz read only 3% distortion. This is top class subwoofer performance, and there's nothing like a good size enclosure to tune bass units properly.

Impedance is low by any standards, and this speaker is a serious amplifier and cable load, but it does significantly improve upon its predecessor, and also has good phase control, implying that the impedance curve is reasonably resistive, and making for easier loading. It does dip to 2.9ohms at 23Hz and 3.2ohms at 230Hz, but could be said to average 4ohms. The worst combination of phase and frequency is a low 3.9ohms with just 23 degrees at 28Hz, so it's clearly a 'better than average' 4ohms load especially in view of the low frequencies of these minima. Also its impedance does not vary much with frequency, which also implies a more consistent sound with different amplifiers and cables.

Sensitivity was certainly above average, though the high, confirmed 91dB/W sensitivity is tempered by the 4ohms impedance, leaving us with 88dB per 'real watt'. However, factor in the 600W programme power handling (8ohms amplifier rating) and you have the potential for seriously loud maximum stereo sound levels of 111dBA in typical rooms.

While the waterfall display of energy decay is somewhat contaminated by nearby room boundaries, it still reveals much. The tight phase and delay control is shown in the very clean top line, the first arrival response, while the rapid clearing (white space) tells of beneficially rapid energy decay and fine time alignment (before the environmental clutter, reflected noise and such, obscures further analysis). The treble is exceptionally clean while that major and

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Make	Wilson Audio
Model	MAXX Series 3
Price	£60,000 including factory grade installation
Finishes	Custom lacquer WilsonGloss
Size (wxhxd)	41 x 175 x 61cm; 16 x 68 x 24in
Weight	425 lb, 193 kg (each)
Type	Five driver, three-way, bass reflex loaded
Sensitivity for 2.83V	91dB
Amplifier loading	Below average: 4ohms, low phase angle
Frequency response, axial	19Hz to 20kHz +/- 2.5dB, (listener axis): excellent
Frequency Response, off axis	Excellent power response
Bass extension	17Hz for -6dB
Max Loudness (in room)	111dBA for a stereo pair
Power rating	20 to 500W
Placement	Floor standing, near free space location
UK Price (pair)	£60,000
Contact	Absolute Sounds www.absolutesounds.com Tel 0208 971 3909

visible decay ridge is actually ultrasonic, at about 24 kHz. This is a very good result, especially for a big system, and mirrors the audibly clean fast transients, stable focus and very good clarity.

Conclusions

Had I drawn up a wish list for improvements following my previous review of the *Series 2*, nearly all the items could now be crossed off. The bass is now respectably even, goes really deep, and has an impressive growling, percussive authority. The full-bodied, well balanced midrange timbre lends the right sense of scale to a whole range of sounds and sources. One special quality it shares with the Quad *Electrostatic* is the sense that source size and position in the depth plane are correct at natural volume levels.

This speaker plays well at all volume levels, and remains satisfying when whisper quiet. Inherently smooth and sweet, it will nevertheless thrill at realistic sound pressures, with surprising, even electrifying, transients and dynamic power. For those who crave something of the hyper-real from sound reproduction, it may seem a trifle understated but in fact this quality is one of its great assets.

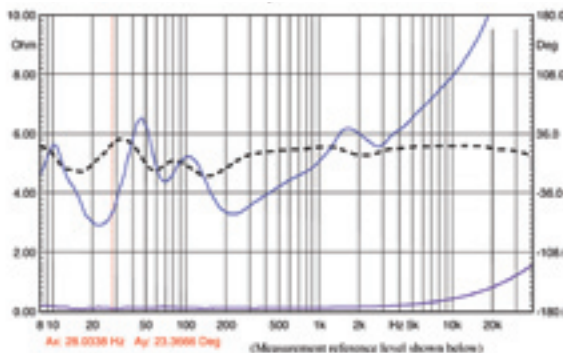
Technically it offers a tolerable if poorer than average amplifier load, yet is suitable for the more powerful valve power amplifiers, rated 100W/ch or more. High current output solid state units sail away on this electrical loading, providing higher yet clean peak sound levels, and this speaker should be capable of operating very successfully in larger spaces. Its frequency responses are wide and well ordered while its consistency across different angles is much better than with the *Series 2*. Build quality is simply superb.

The purchase package includes factory grade installation in your room, with fine critical calibration for location, timbre and low frequency damping according to the requirements of the local acoustics and matching electronics. Its inherent neutrality allows for flexible choice of ancillaries and electronics but it will also reveal any inconsistencies or shortfalls.

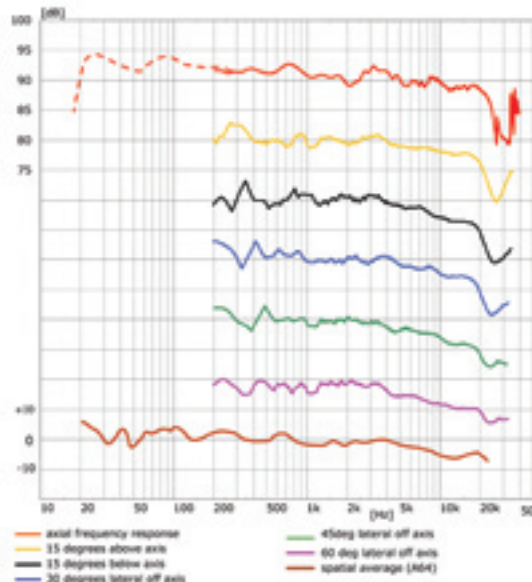
Here is a loudspeaker which can rock really well in a classic sense, delivering a thrilling sound of massive authority, with effortless deep bass, yet its innate subtlety, consistency and neutral timbre is also readily appreciated with finely recorded classical programme.

The *MAXX Series 3* may be enthusiastically recommended. It's a magnificent, powerful, musically dynamic creation which will allow you to forget about the technicalities of sound reproduction and bathe in rewarding musical experiences for years to come.

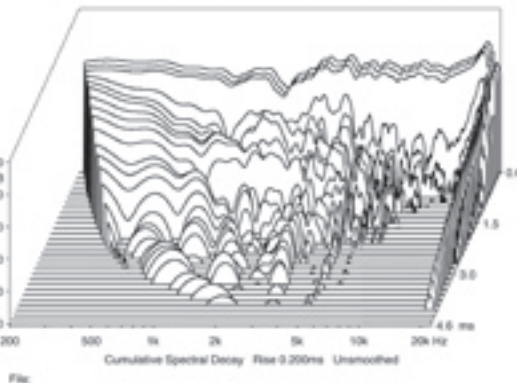
Impedance and Phase



Frequency Responses



Waterfall Decay Response (@1m)



The System:

2x Krell *Evo 600M*, Krell *Evo 202*, KrellCast and Transparent balanced *MM2* interconnects, *MM2* speaker cables. Audio Research *Reference 3*, *CD-7*, 2x *Reference 200*. Conrad Johnson *Premier 350 SA*, *XTC Pre One*. Naim *CDS3*, *First Ultimate* and *mm2* cables. Linn *LP12*, Naim *ARO*, Koetsu *Urushi Sky Blue*, Naim *Superline/Supercap*. *VDH D 501 S H*. Finite *Elemente Pagode*.

Subjective Sounds

PAUL MESSENGER

HIFICRITIC

AUDIO AND MUSIC JOURNAL

BECAUSE HIFICRITIC IS FUNDED BY ITS READERS THE SUBSCRIPTION COST IS NECESSARILY HIGHER THAN FOR MAGAZINES SUBSIDISED BY ADVERTISING REVENUE, THOUGH CERTAINLY NOT AS HIGH AS PROFESSIONAL SPECIALIST JOURNALS.

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Paul Messenger, Editor

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Mains cables don't sound like the most interesting or glamorous elements of a hi-fi system, but anyone using a high quality hi-fi system should be aware of their importance. The mains matters because it provides all the energy that powers our systems. Furthermore, over the last thirty years, while our hi-fi systems have been steadily improving, the deteriorating quality of the mains has done its best to wipe out any progress.

Just how any particular hi-fi system will react to changes in the mains supply is difficult to predict. My essentially Naim-based system is certainly very responsive to any changes – it even detected the changing of a very large fuse a couple of hundred yards up the road, in the local area transformer that feeds dozens of houses. But I can't say with any certainty or justification whether a different type of system in a different environment, will react in a similar way.

While some of the techniques cost very little money – such as supplying the hi-fi from its own separate mains spur – some of the bits have pricetags with several 0s on the end. Here the best advice is to find a dealer prepared to supply such bits on trial, so they can be properly assessed in situ.

The heart of the problem is that the mains supply may be affected by several different factors, and the best treatments for each often conflict with one another. This makes deciding the best course to take very difficult indeed – even for a reviewer with ready access to company loan stock. Especially because it might be important to match the different mains feeds to each component in the system (or the most important ones anyway).

In my case I therefore need at least three identical mains cables (to feed CD player, pre-amp and power amp) to make a proper assessment. In fact I regularly use seven (adding FM tuner, turntable drive, phono cartridge and SB+).

That's no problem for the music line *Powerigel* (*igel* being the German word for hedgehog) with its eight matching IEC-terminated leads that I've been using for some years. The *Powerigel* is good, no question, and very convenient too, but it's no longer the ultimate in performance. (At the Munich show in May I saw a prototype using the superior and mechanically decoupled IEC plugs Naim fits to its *Powerline*, but have no details yet on price or availability.)

About a year ago I bought myself some silver Phonosophie mains leads and a multi-way Schuko block. These gave a modest improvement in quality, with a tauter, tighter sound, and also offer greater flexibility. Like the *Powerigel*, however, they really go no further than good quality ingredients and close matching.

Other cables can go further. James at Tom Tom Audio recently lent me a Naim *Powerline*, which adds painstaking mechanical decoupling in both plugs to high quality ingredients. I connected my complete system up with the *Powerigel*, then substituted the mains lead to the *CDS3/PS555* with a *Powerline*, and was immediately impressed by the extra detail and information. The difference was less marked compared to the silver Phonosophie cables, but as a £395 upgrade, *Powerline* is very good value.

When I told a colleague the prices of the latest cables I've been trying, he was so shocked he asked whether the manufacturers concerned knew which planet they were on. Each item amongst the latest kit from Synergistic Research (*Hologram* cables plus a *Tesla PowerCell*), and also Vertex AQ's new *Hi-Rez Roraima*, costs more than £2,000, and both companies are using various different techniques to reduce or eliminate mains-borne electromagnetic interference.

Although the prices are horrendous, these products do sound wonderfully clean, with exceptionally spacious and airy imaging, and especially sweet voice reproduction. But I've run out of space and still have to do more listening, so that'll have to suffice for the moment.