

An hour and a half after I'd heard it through a whole Quad '77' system, I found myself tapping out Morello's marvellous drum solo from Dave Brubeck's 'Take Five'. This was the first time Quad's brand-new 77FM tuner and 707 power amplifier had met in a reviewer's home. The effect was memorable. Within days, heads turned at the supermarket checkout, hearing a spirited *sotto voce* — but not quite so *sotto* as I thought — rendition of the Shaker hymn tune (the 'Lord of the Dance') from *Appalachian Spring*.

By the time I'd reached the Portobello market kipper stall I was humming recognisable Chopin. Even the 'Dies Irae' from Berlioz's *Grande messe des morts* had lodged in my skull, such was the highly-coloured audio picture of Walthamstow Town Hall, blazing brass bands, chorus and all, thrumming away inside my head for hours.

When hi-fi does what it's supposed to, you're left in no doubt: it plays music memorably, winds up the emotions, absorbs a listener into a performance, frees the imagination leaving no room for anything but the performers. The latest Quad combination of 77 pre-amplifier, 77FM tuner, 77CD player, 707 stereo power amplifier and little 7710L loudspeakers did exactly that, whether it was a Robert Johnson solo, or the Vienna Philharmonic under Solti playing the overture to *Tannhäuser* in full glorious flight.

Make no mistake: this is serious hi-fi that has definite claims on the high end. And it all costs less than £4000, making it surely this year's serious hi-fi bargain.

Quad's innovative remote control system was described in *HFN/RR* in February 1995 along with the integrated amplifier, of which the 77 pre-amplifier is a development. Little needs to be added about the 77 CD player [*HFN/RR*, Nov 1995], except that installed together in this review system were both a bus-powered and mains-powered version, which showed no audible differences. The units were supplied in the new 'carbon black' finish, smooth black metalwork with a carbon-fibre inset

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Tested
77 pre-amplifier and remote console:
 £849.95;
77FM tuner:
 £699.95;
77CD (bus-powered version):
 £699.95
707 power amplifier:
 £799.95
77-10L Loudspeakers:
 £599.95

on the fascias. All very elegant, more so to my taste than the 'grey' variety; the inset is oddly and delightfully reminiscent of that high-gloss glass-like finish of lithographed tinplate toys. A welcome development.

Mr Murphy's well-known law conspired to send various bits and pieces of the system to different places at different times. For once, what began as an infuriating hindrance became a help when it was all finally retrieved, because every component was doubled-up. That allowed a full test of the system control with multiple sources, as it is supposed to function. It was unfazed by two CD players and two tuners, crowned with two stereo 707 power amplifiers for bi-amping the loudspeakers.

For that, arise Sir Murphy, because bi-amping dynamic loudspeakers (it can't be done with ESLs!) with 707s turned out to be a stroke of accidental genius. Anyone who buys a 707 for use with dynamic loudspeakers should put in an order for another as soon as possible, if not immediately.

The new power amp should strike a chord among many Quad owners.

Apart from the number on the fascia, graphically more attractive on the black version than the blue/grey one, I thought, externally the old 606 and new 707 are identical.

The Quad 405 power amp saw 100,000-plus sales before its demise. Vociferous cynics took the discontinuing of its successor, the 606, and the announcement of the '77' series 'enhanced Class B' stereo and monoblock power amplifiers to mean that the famous 'current-dumping' design of Quad's founder Peter Walker had been written off forever. Now current dumping is back, for the 707 is a revision of the (itself once revised) 606, with some small circuit changes and a Quadlink bus to accept a balanced signal from the pre-amplifier. It isn't just limited to a current Quad system, however: there are phono inputs, too, which allowed it to be wired up to a Michell Argo HR pre-amplifier as a part of the overall test.

Quad has been a strong supporter of the wireless for 40 years, even making its pre-amp control microprocessor default to 'Radio' input. The discontinuation of the FM4 and 66FM left us bereft of a Quad radio for two years. But now, at last, we have the 77FM.

The old FM4 built up a fine reputation, and is still used by broadcasters as a monitor. Only tuners like the fabled Marantz 10B of old, Burmester, Day-Sequerra, Naim and Audiolab can sit alongside it in my roll of honour. And it still represents my favourite affordable tuner of all time.

Switching between the FM4 and the 77FM showed that in terms of pure sonics the new tuner was well up to the standard of the old, which is meant as high praise. A neat trick, very probably borrowed from video cassette recorders and facilitated by RDS/EON's ability to find the strongest transmissions, is that pressing two preset buttons on the fascia automatically tunes in and stores 25 stations in as many seconds, in order of signal strength. They can be stored as mono or stereo, depending on reception strength, and dedicated to either of two 75 ohm co-ax sockets, one of which is attenuated for cable. A word of praise for Quad: what seems like donkey's years after the launch of



Quad completes the 77 system:
this review covers the combination of
77 pre-amplifier, 707 power amplifier,
the long-awaited 77FM tuner and
the established CD player, and the
recently launched 10L speakers

by ERIC BRAITHWAITE

completely
QUAD

RDS, this is the first British RDS tuner. That's ridiculous; the Japanese have been at it for years. What are the other Brits doing? Anybody would think RDS hadn't been invented here.

Completing the system, Quad supplied its 'miniature' loudspeakers, which caused a stir back at Live '95, being the company's first moving-coil model. In their original form, these were made by Spendor and finished in Quad-decreed grey Nextel with plum-coloured grilles. Currently rolling off the production line are pairs finished in closely-matched Yew veneer (in a quality nearly as good as Castle manages, which is quite something) with gold-plated terminals for bi-wiring and a black cloth grille. Now made in-house, by Verity — apparently with some minor crossover alterations — the speakers make use of a soft-dome Vifa tweeter and a 'Made in Norway' (SEAS, by the look of it) main driver.

One way and another, a great deal of dust has been blown off a great many CDs and LPs during this system's stay. (Yes, the 77 pre-amplifier has a phono stage that caters for both moving-magnet and moving-coil needles for rebarbative disc owners.) It all settled on the television where it rightly belongs.

Shouldn't be nasty about the telly, come to think of it. After all, Quad is planning an A/V Dolby Pro-Logic amplifier, a prototype of which was being tested when this system was delivered. In fact, there was a moment listening to the Met's *Così fan tutte* on Radio 3, and hearing the audience laugh so realistically as to feel part of them; and so, naturally, it was positively irksome not to be able to see what stage business they were laughing at.

Above all it's those two words 'natural' and 'real' which kept the records, CDs and copies of *Radio Times* piling up. That Brubeck track, a masterpiece of complicated composition, swung deceptively like the simplest thing on earth. The drum solo was surprisingly clear and clean, deep and detailed enough to underpin the cymbal work — a little soft in focus and attack, but without suffering the ills of splashiness — while the rhythm and tempo of the side drums and the realism of the kick drum's *thwack-thunk* were admirable.

At the same time, the double-bass was clearly thrumming rock-solid in the centre with every plucked note clear. This was surprising quality bass from a small speaker: not much below 45-50Hz, sure, but of a quality exceeded, at anywhere near this

price, only by the quite extraordinary Harbeth HL-P3ES. By comparison, a pair of Rogers Studio 3s on the end of the system were distinctly under-endowed bass-wise, although the alto sax was nicely more forward and of a more lifelike scale, brighter and seemingly with a little more 'body' and 'shape'. The 77-10Ls do produce slightly scaled-down overall individual images, but not so lacking in spaciousness as to sound anything like as small as they are. In balance they are very reminiscent of the splendid Castle Richmonds of some years ago, or perhaps the ProAc school, and do give a good impression of the weight of a full-size orchestra.

The chorus in the *Messe des morts* betrayed a tinge of nasality in the 77-10Ls, which melded tenors and baritones a little too much together, while sopranos in The Sixteen's Bach *B-minor Mass* were a little too bright and sharp, fizzing to cover over the definition.

With rock, pop or jazz, this was just enough to highlight the girl vocalist on The Beautiful South's 'Rocking Chair', for example, or increase subtly the clarity and forwardness. At the same time, there was a touch of warmth and richness from the pre-amplifier's Quad bus (a little clouded over and lighter

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SUPPLIER

Quad
Electroacoustics
Ltd,
St Peter's Road,
Huntingdon,
Cambs
PE18 7DB
Tel 01480
52561



through the phono output sockets, interestingly enough) on which the 707s feed, enriching the lustre of brass to give the massed ranks in the Berlioz a stunning presence and powerful scale.

The Berlioz LP was delivered by a treasured and carefully cleaned Koetsu Black moving-coil, Gyrodec/Gyropower and the Quad's own m-c stage. This disc stage is remarkably good, very far from the afterthought I had half-anticipated, having heard what turned out to be a pre-production pre-amplifier last year. It doesn't have quite the authoritative air and space, or the same fine detail as an Iso/Hera, but it was close enough for me not to want to switch for long periods. Wiring up a Goldring 1042 delivered somewhat less bass depth than expected, but proved the stage's transparency, since this is a recognised artefact of this m-m in an SME IV arm on a Gyro. It delivered a little more crispness on vocals, but no less fine detail. There's a just-perceptible mid-range 'presence region'

brightness and lightening, which helps LP reproduction in this respect. The m-m option also had a more hissy background than m-c, but vinyl users need not fear stinting on either breed of cartridge. One with high-end dynamics, imagery and tonal accuracy is mandatory. A cheapo old AT-95, say, would be quite undeserving of its capabilities.

Whether fed material via vinyl, CD or radio, the 707 proved to have superb dynamics, astonishingly solid imagery and extraordinarily adept timing. A lack of image depth and loss of recorded ambience were down more to the pre-amplifier, whose warmth of sound favoured the darker string tone regions, than the power-amplifier, as a spell with an Argo HR pre proved. An old colleague of mine has been apt to say that Quad equipment is 'more Baroque than Rock', but the 707's rock fort. (That'll teach him to pun when I'm around!) And they rock manically enough for the Street Preachers, the Lightning Seeds, Jamiroquai, Kula Shaker or Sir

Charles Thompson's 'Mister Boogie' on the splendid Sony SBM remaster.

I'm too young to have learnt the jitterbug but the music was so fast, furious and clean, it left me with an indelible image of girls in pleated skirts being flung underarm and overarm like a Wimbledon champion's racket in a furious rally.

For the sake of readers like Mr Allison [*HFN/RR*, April 1997], the 77-10L is one small loudspeaker with the quality, but not depth of bass, to do Reggae like The Fugees' version

Both the Quad 77FM tuner (top) and 77CD player (above) can be operated using Quad's menu-driven, computerised remote control

of 'No Woman No Cry' convincingly — though this too stripped-down, simple cover is nowhere near as emotionally charged as Bob Marley's own. They also managed with the heavy house and rap I kept tuning in to on Radio 1. (That I don't even like it speaks volumes for the 77FM's persuasiveness as well as the user-friendliness of the remote, which tempts you to channel-hop as eagerly as an American TV-addicted ten-year-old.) Admittedly, it ain't as heavy as the bass from a Notting Hill Carnival stack, but it was convincing, and that carries you a long way.

What carried this listener completely away was, first, bi-amping a pair of Harbeth HL Compact 7 with two 707s, and then luxuriating in the sound using an Argo HR pre. In the Quad system, the HL7s' already very tight imaging became even more so, to the extent that loudspeakers could, and should, be positioned further apart than normal for better ambient space.

That should also make the 707s ideal candidates for an A/V surround-sound system where a really solid figure of a 'phantom' centre channel is preferred to the compromised stereo resulting from a poorer-quality small centre-channel dialogue speaker. Six feet apart was an absolute minimum for the 77-10Ls, and a considerably greater acreage of living space would have benefited the Harbeths, giving more scope to reproduce orchestral recordings of near-real proportions. Bass extension could also be provoked down to 35Hz, increasing bass strength, toughness and volume to a very useful and inspiring degree.

The benefits in the Quad system were more detail in the bass and even easier, utterly relaxed, wide and instantaneous swings of dynamics. Difficult to describe, this does not merely mean louder orchestral climaxes, but also the sensation of comprehending more even about a violinist's or cellist's bowing action. Not as pure and easy in this as the Chord SPM600, nor as totally holographic as the Michell Alecos, the twin 707s were remarkably exciting.

The effect with the Koetsu, Iso, Argo HR, and bi-amped Compact 7s playing the Berlioz Mass second time around was to produce an overwhelmingly emotional involvement: double the degree it had been before, and that would have satisfied most listeners. The compass-point brass bands were astonishingly vivid and large in scale,

THE QUAD REMOTE CONTROL SYSTEM

It was gratifying to discover that the Quad Remote proved quite unfazed by the task of learning to control and communicate with two 77CD players, two 77FM tuners and two 707 power amplifiers. All were connected with the 'SCSI'-like cable which carries power (except to the power amplifiers) and control information, and a balanced stereo audio signal. Bi-amping simply required a 'Quadlink' cable to daisy-chain two power amplifiers. More amplifiers could be added in this way.

The remote console receives information from each source individually and then displays the relevant hierarchical menus to give full control. Only basic functions are left to the soft rubberised buttons on the fascia of the components. As those horrid computer software designers say (though not Quad!), the 77 pre-amplifier — and the 77FM tuner — 'add functionality' to the console.

All sources are listed on the LCD display. Three auxiliary line inputs are available, along with phono and analogue tape in/out. (What's missing here is any facility for a digital input from, say, a digital satellite receiver, or

for taping, let alone monitoring, digitally. Though the 77FM has a pair of analogue phono sockets, the 'bus' CD player has no outputs.) Each can be programmed individually for input sensitivities of 100mV, 300V or 775mV. These, like other sources and the presets for the 77FM

tuner, can all be renamed using the 'Edit' menu which gives access to a full character set. The software limits individual names to five letters.

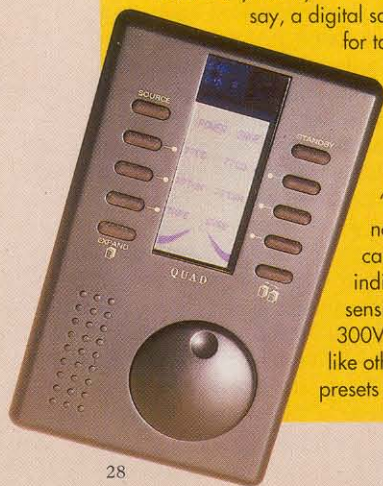
Since the 77FM is an RDS tuner, the handset can be used to toggle easily between Radiotext, Programme Type, Station Name and Frequency. (If the station does not broadcast RDS, the console will 'ask' the tuner what frequency it is tuned to and display that instead.) The console needs to be kept fully charged. Once, when it wasn't, I read Radiotext for Jazz FM instead of 'Bluäë Än Ja M'!

Some RDS features, although 'inside' the tuner, as it were, aren't implemented in the software. It is not, therefore, possible to search for programme type — if you want it to find any station broadcasting 'News' — or traffic announcements.

One aspect of the software for the tuner needs to be re-written: the handset displays 'No RDS' both when there really isn't, but also, misleadingly, during the second or two while it waits for the system to send any when there is. It should say 'Please Wait', a message which is already written in the software anyway.

'Treble Tilt' and 'Bass Step' tone-shaping controls, a feature of past Quad pre-amplifiers, return on the pre-amp remote menu. The phono stage is switchable, also via the console, for moving magnet or moving-coil (10-times gain) input. Three sensitivities can be stored, sufficient for the majority of cartridges.

Tape and volume display software revisions have now been implemented and the latest software is much faster than the original, the display updating quickly enough for no-one to notice any lag. Earlier versions of the console can be updated with a new chip fitted as easily as a SIMMs computer chip, or if preferred left to technicians at Quad or one of its dealers.



with the tension of the chorus straining over them; utterly palpable seat-of-the-pants stuff.

As it all diminished and the chorus of the 'Responsura' died away, it brought back unbidden and unbearably vivid and poignant memories of friends now dead. I found myself weeping uncontrollably and quite unable to turn the side over to continue. That experience will never show on an analyser. It happens all too seldom at live concerts, and hardly ever even to reviewers favoured with more hi-fi than most people hear in a couple of lifetimes. It's what makes great hi-fi.

For various reasons, including Quad spending its 60th birthday year being taken over by Verity plc, owners of Mission, Wharfedale and Roksan, the '77' components have been brought to market in an irritatingly piecemeal fashion. It's taken nearly two years to build up to a complete flexible component system format like the one here. But good heavens, it was more than worth the wait. Now, any complaints? Of course: this is a serious paper.

Outside the context of a Quad system, the almost ridiculously low (84dB!) sensitivity of the 77-10Ls will rule them out for some other users. At 22 on the volume scale of 32 (twice 11, Spinal Tap fans!) a pair of Harbeth HL Compact 7s had neighbours queueing up clutching bottles wanting to join the party. But their knocking was drowned out. At the same level the 77-10Ls were still partying, but the neighbours' hammering *could* be heard. A pair of Meridian 505s wouldn't drive them anything like as dynamically as the 707, or, curiously, a Quad 306 could. Interestingly, the digital volume control of the 77 pre- had perfect channel separation at very low volumes, although Quad's dynamic speakers are best given a good strong shove by the power amplifiers.

It also has to be said that while the 77FM is fully the sonic equal of the FM4, technically, there were inkings that neither separation nor sensitivity was as good. Though it should be borne in mind that the two samples I heard were early off the production line, there were variations between them — one had a fraction more hiss than the other on R3 silences, which reduced the surrounding ambience and depth, and neither were as 'blackly' quiet as either an FM4 or, particularly an Audiolab 8000T, and some current Japanese RDS tuners better the specification, too. One also delivered a nasty 1kHz tone on R3 at 91.3MHz (though not on R3 at 91MHz) which all suggests that

factory adjustment and quality control need tightening up.

However, it was characterised by very fine detail, excellent imagery and a very pure but not lightweight tonal quality. The tonal colour and instrumental dynamics were, like the FM4's, excellent, especially on voice (utterly free of 'spitching and spatching'), with fine individual images and good body especially in string quartet and jazz and no muddling in orchestral sections on orchestral broadcasts.

While the 77 pre is very good value — a £600-£700 pre-amp, an operating system you'd pay £200 for if it were computer software, and £300-worth of phono stage making up the quart that is all squeezed into this £850 pint pot — it wasn't capable of fully exploiting the superb subjective performance of the 707. Its phono-socket output also proved too low for the Meridians, which meant the volume had to be turned up much further than two Spinal Taps to deliver much in the way of volume, and far less in the way of dynamics, even with the Harbeths' higher sensitivity — so anyone fool enough not to want to use a 707 with it should beware.

As a system, though, this should put Quad right back on top of its long and well-deserved reputation among consumers for high quality, true hi-fi at a price few others can beat. All we want now is a definitive high-end pre-amplifier, with the same control flexibility: for about the same price as a pair of 707s, please. And a 96kHz-sampling, 20-bit DVD player for high quality audio. At last, years after the capability was agreed, Sony has begun to issue CDs with titles and text. Since these would appear on the Quad handset as Radiotext does, I've already put in a request for that to be enabled in the CD player and the next version of the software soon.

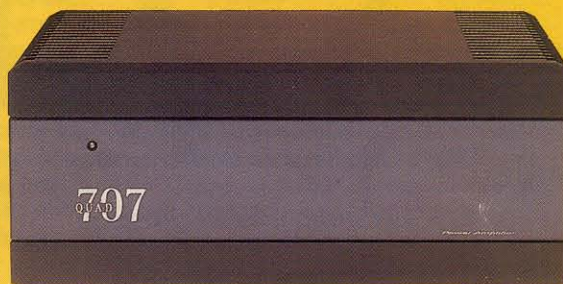
Quad missed celebrating its 60th birthday with a party. Despite the quantity of cigarettes I get through, given the way average life-expectancy is increasing, I hope to be there for the 90th which this 77 Series should ensure. If it is a harbinger of Quad's future direction, I might even give up smoking for the first time in 20 years, just to be sure. +

Manufacturer's specifications



Quad 77FM tuner:

Channel spacing (UK/Europe)	50kHz
Sensitivity (30dB quieting) mono	8dBµV
Sensitivity (50dB quieting) mono	18dBµV
Sensitivity (50dB quieting) stereo	18dBµV
Signal-to-noise (1kHz, 1mV 'A' weighted), mono	68dB
Signal-to-noise (1kHz, 1mV 'A' weighted), stereo	68dB
Distortion (at 1kHz, ±75kHz dev.) mono	0.08%, stereo 0.1%
Distortion (at 1kHz, ±25kHz dev.) mono	0.04%, stereo 0.06%
Capture ratio	1.5dB
IF Rejection	100dB
AM suppression	60dB
Image rejection	80dB
Pilot tone suppression	>78dB
Crosstalk (nominal at 1kHz)	-50dB
Output level (2 30% modulation)	600mV
De-emphasis	50µs or 75µs
Dimensions	321x80x255mm(whd)
Weight	2.8kg



Quad 707 power amplifier:

Power output	120W into 8 ohms, 14A peak 220W into 4 ohm, 14A peak
Distortion 20Hz/1kHz/20kHz	0.01%/<0.01%/<0.03%
Output impedance	1.5µH in series with 0.05 ohm
DC offset	typically 7µV
Frequency response, ref 1kHz	-0.25dB at 20Hz and 20kHz, -1.0dB at 13Hz and 40kHz
Power response, ref 1kHz	-0.25dB at 20Hz and 20kHz
Input sensitivity for 140W into 8 ohms	775mV
Input impedance	20k ohms
Crosstalk (input loaded by 1k ohm), 1kHz/10kHz	-80dB/65dB
Hum and noise, unweighted, ref 140W	-105dB
Power consumption	35-750W
Protection	fuse protected; resettable current trip by push-button at rear
Dimensions	321x140x238mm(whd)
Weight	12kg

Quad 77-10L loudspeakers:

Frequency response, ±3dB	70Hz-18kHz
Bass roll-off (-6dB)	at 55Hz
Power handling	70W
Sensitivity	-84dB/1m/W
Nominal impedance	8 ohms
Cabinet size	325x190x240mm (hwd)

Quad 77 pre-amplifier:

no specification supplied

