

*For around £100 you can
upgrade old Quad II's to a
new performance level*

by CHRIS BEECHING

QUAD II: MODS VERSUS ORIGINAL



**Immediately
the sound was
more open,
more detailed,
yet clear and
decisive at the
same time**

Quad amplifiers have been around in domestic situations since the early 1950s and they're still going strong. Recently there has been a surge of interest in older equipment, and although Quad never seems far out of the limelight, it has acquired almost cult status among some 'serious' listeners. To 'improve' upon the original design of the Quad II, one or two companies have embarked on a series of upgrades and design changes, to boost an already good design to new heights with increased power output and lower distortion.

We all fancy tweaking our systems from time to time, and I'm no

exception. Armed with miles of silver wire, bagfuls of resistors, capacitors, chokes and high quality connectors, I set about improving my aged and tatty set to see what could be done.

The mains and output transformers were still in good condition overall, and underneath nothing appeared to be leaking. Most of the internal wiring had suffered so much from the repeated heating of years of use that it all looked the same colour – a dull brown-grey which gave no clue as to its original hue.

Most of the resistors had discoloured too; all their tell-tale colour coding rings were brown, and the ends had started to fade to a grubby grey. As neat as the day they were manufactured, the dear old power amps had given sterling service, but were due for a bit of attention.

The whole of one power amp was disassembled, noting exactly where the various components had been fitted. Valve and transformer orientation was also noted so that, in the event of problems later on, their original positions could be reproduced. The resistors were removed one at a time, taking care not to overheat the tags to which they'd been attached. Several were checked to see whether their values had altered over time; some had, quite dramatically, especially the one in parallel with the smoothing capacitor between the two KT66s.

Once disassembled, the whole chassis was cleaned, and valve bases checked for cracks and corrosion. In the event, none of the bases were in good condition and so were all renewed with high quality replacements. As the intention was to run the two power amps as self-powered independent units (no longer dependent on the pre-amp for operation), the six-pin connector was removed and discarded, as was the now ancient two-pin mains input – replaced by a three-pin modern equivalent. The resistors, capacitors and silver wire were sourced from reputable high quality manufacturers, and chosen for low noise and reliability. Owing to the slightly revised operating conditions proposed (*ie* without the Quad 22 pre-amp), the internal wiring was tailored to suit, but was otherwise left rewired as the original with the exception of the connections to the output terminals (gold banana plug/binding posts), for which Linn cable was used. The end result was a pair of amplifiers which should be capable of at least the best from their day. But what of their place in *today's* market: was it worth the effort?

I had three other amplifiers available by way of comparison. A set of good condition unaltered Quads, a pair of Peter Lindley's re-manufactured power amps, and my own stalwart Naim 72/90 combination. Ancillaries were a pair of the original Quad Electrostatics, a Linn/Ittok/ATOC9, a Pioneer CT91a and a CDP35. Interconnects were all from The Chord Co, except for the speaker cable which was Linn's heavy grey stranded stuff. Having left all the equipment on for a couple of hours to warm up, listening began.

The original Quads sounded warm, slightly soft, but very spacious. Fine detail was a little veiled, and there wasn't the decisiveness which we've become used to from modern transistor designs. The leading edge of attack seemed a little lacking, and the bottom end was blowsy – a little too warm, maybe – but nevertheless overall a very com-

portable sound, a sort of relaxed living-room sound. Despite its age, the top end was remarkably clear but without the sharp aggressiveness of non-valve amps.

Next in line came my own modified Quads. Immediately the sound was more open, more detailed, yet clear and decisive. Timing was vastly improved over the original untouched set, and the soundstage was deeper, wider and higher. Imaging was of a much higher order, and even in complex passages – for example the end of Saint-Saens's Third Symphony – the amplifier coped much better with everything going on. However, then came the anomalies. The recordings which sounded the best were those recorded using analogue techniques, and without digital processing until much later in the production chain. Some of the older Decca and Argo LPs had a wonderful sense of depth; the Argo recording of *Pulcinella* had behind it an inky, velvety blackness – the sort of space you could put your arm into, right up to the shoulder. In comparison some of EMI's digital LPs – Strauss's *Also Sprach Zarathustra* – were decidedly flat when it came to soundstage presentation.

Pop music was even more variable. The original Quads, with their slightly warmer presentation, managed to furnish most recordings with a reasonable soundstage – due primarily to their less precise handling of the material. Their slightly warmer, overblown woolly bass added an 'ambience' which, to a large extent, covered up the shortcomings of the recordings, whilst adding depth to digital material. Surprisingly, CDs from analogue sources exhibited the same (though less marked) characteristics as their LP siblings, acquiring a warmth and depth through the older Quads which then disappeared when listening through my upgrades. The biggest disappointment came when listening to multi-tracked recordings – the older Quads sounded more relaxed, but with the upgraded ones the soundstage was just flat. When presented like this, the music loses all its involvement: no depth, no ambience; and although in the main the sounds were beautifully clear, the presentation of the acoustic was a let-down. You could argue that there isn't necessarily an ambient space to some music, but when it is removed like this, you really miss it. Live concerts and recordings were much more '3-D', but any later studio editing was so obvious because of the shift in soundstaging and ambience.

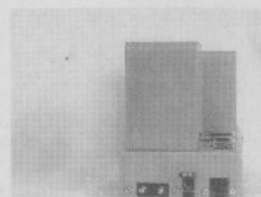
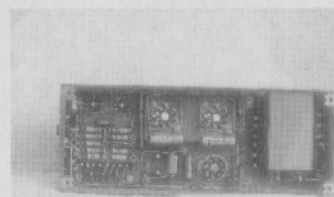
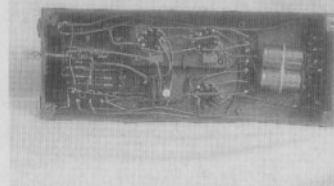
It was with some interest that I hooked up the Lindley-modified Quads. The mods aren't quite a straight component upgrade; Peter

Lindley ups the values of the smoothing capacitors and substitutes a GZ34 for the original 32 to give improved headroom, and this certainly showed in sections of Mahler's Fifth. Lindley uses Golden Dragon valves.

Immediately, there was as much improvement as between my own Quads and the untouched originals. Lindley's were sweet, lucid, transparent and had bottle enough to make you think you were playing with a much bigger amp altogether. Here was an amp which didn't seem to be trying; it presented the signal to the speakers, warts and all. If the recording was a bad one (and I tried a couple) it *was* bad. Like my own mods, though, you could also tell whether the soundstage was flat or deep, and when it was flat, it *was* flat!

Timing was superb, imagery was of a very high order, and transients were handled with an openness which was hard to fault. You could hear when Evelyn Glennie moved across to different instruments and how the position of almost every note could be defined as she played. There was no lack of bottom end either. My own electrostatics are lifted off the floor by about a foot, and tilted slightly forward to fire straight at the listener rather than upwards as they would on their original short legs. The gain is in both imagery and bass (probably not enough for the megabass rap or reggae freaks, but enough for well-recorded organ music or jazz to fill the room and transport you there). The warm overblown bass of the originals had gone, the tighter deep bass of my own mods had also been improved – here was deep, serious *clean* bass.

So what of the modern-day 'equivalent'? How did the Naim combination do? Bearing in mind that the technology is in a quite different league, and that it wasn't designed for use with the electrostatics, it gave more than a good account of itself. I've used the 72/90 as a reference for some time, and know its vices and virtues well. It has a clean tidy and punchy presentation and will out-perform most amps on the market in an ideal system. Comparing it with the modified (and original) Quads brought some surprises. To start with, there was noticeably more punch to the sound. The leading edge of the sound was presented quite hard, almost like saying 'here is some music'. Its soundstage was quite open, but not as much as any of the Quads; and although it had depth, it wasn't as deep as the modified Quads, though it bettered the untouched ones by some way. Imagery and timing were spot on, and presentation was a little more



forward than the valve amps. Listening to pop music, especially the multi-tracked stuff, *didn't* produce such a flattened soundstage though. There was a bit more depth to the performance than the valve amps had presented. Dynamics were also a lot greater – perhaps due to the higher power output of the Naim amp – but there was no lack of detail. Although driven quite hard (but not to clipping levels) the older Quads start to 'shout' first, starting to harden up at pretty high levels, whereas the Naim was the last to 'let go'.

CONCLUSION

For an outlay of about £100, and assuming that you have a decent set of old Quad IIs lying idle, upgrading would seem worthwhile. The end result will be a good valve amplifier capable of better performance now than in its original form, due in part to modern materials and quieter components.

The upgrades I carried out were really only a 'match and renew' exercise – and I was more than surprised by the results. I'm sure that with Holco resistors, higher quality silver wire, better capacitors and so on, the improvements would be even greater. Peter Lindley's mods do go a stage further with improved smoothing and greater headroom, with again a noticeable improvement in sound quality. Compared with the Naim, they stand up very well. They certainly sound more relaxed than the Naim, and just as involving. Musicality is something else to consider; I think the Naim does well but *all* the Quads were more musical (which may be unfair on the Naim as perhaps it wasn't partnered with the best equipment to bring that quality out).

Quad can still supply service parts for these power amps, though Mullard or GEC valves are a mite hard to find these days. You may have to settle for the Golden Dragons. Then all you have to do is settle down and have a good listen. ✦

Seen above, old and new compared: upper pictures show the author's mods, lower ones the original Quad II

Assuming that you have a decent set of old Quad IIs lying idle, then upgrading them, even to a basic level, would seem worthwhile

Distributor (for Golden Dragons):
PM Components,
Selectron House,
Springhead
Enterprise Park,
Springhead Road,
Gravesend, Kent
DA11 8HD. Tel:
(0474) 560521

Manufacturer:
Quad
Electroacoustics,
30 St Peter's
Road,
Huntingdon,
Cambs PE18
7DB. Tel: (0480)
52561