



**Ken Kessler gets into the ring with Rotel's diminutive new power amp... and finds it's a knockout**

# POCKET ROCKET

## DETAILS



Rotel RB-1092  
stereo power amplifier



£1600



[www.europe.rotel.com](http://www.europe.rotel.com)



01903 221600



Huge sound, small amp



Care needed with levels

One hesitates to apply the word 'revolutionary' to a piece of hi-fi equipment because it implies that the product is the first/best/biggest/cheapest/whatever of its type. In the case of Rotel's RB-1092 stereo amplifier, it may or may not be the smallest 500W/ch amplifier available. My uncertainty? It's only that I recall a tiny amp from the late 1970s claiming vast power outputs that in practice would barely drive a pair of headphones. The Rotel, on the other hand, really does deliver the goods – 635W per channel worth.

So why am I even toying with calling it 'revolutionary'? Simple: this beauty occupies a space of only 432 x 92 x 407mm (whd), it weighs only 10kg and it

retails for a mere £1600. Thus, it behaves like a regulation high-end monstrosity but with less than half the volume, a third of the weight and at a tenth of the price. Just think about the trouble this amp could cause if

**'The trouble this amp could cause if we all stopped worrying about brand names'**

we all stopped worrying about brand names.

Even if we factor out the lack of snob appeal, the Rotel clearly has much with which to seduce you, massive amounts of

power being the most obvious. It actually sounds great, with a more-ish, silky character that allows you to sit there for hours without fatigue. Add to that seemingly limitless headroom and an inability to be driven into clipping (unless you're an insane, partially-deaf Ecstasy habitué with a penchant for club music, heard via insensitive speakers) and you have a wonderful party trick: buy the Rotel, cover it up and play it for knowledgeable friends through some ravenously hungry speakers. Then ask 'em to guess which amp you're using.

As Paul Miller's sidebar shows, the secret to the compactness is the successful application of B&O's outrageous ICEpower modules, by now

LEFT: Miniature amp with mighty muscles, the Rotel has real appeal

scary 5.1 or 7.1 multi-channel installation.

'Installation' is the key word. Whether for pure music or for home cinema or for both, there's major growth in the custom installation field that seems to have gone wantonly unnoticed by audiophiles.

Listen, gang: just because people are hiding their wires and enclosing the amps in a suitable cabinet, it doesn't mean that they're the spawn of Satan. They just don't want their homes to look like the mad professor's lair in *Back To the Future*. Given the size of the Rotel RB-1092, lots of installer-types are gonna love it simply because it reduces the space normally allocated for amplifiers rated at 2x500W by a serious margin.

**ENERGY BOOST**

Slotted into my regular review system, driven by the McIntosh C2200 pre-amp, the Rotel felt right at home. It wears multi-way binding posts for bi-wiring from the amp rather than requiring a splitter, and features Neutrik Speakon sockets for those single-plug connectors beloved of the professional sector. I settled on the Acrolink and Yter speaker cables.

It was the sheer surfeit of power that struck me at first; I normally use amps in the 100-150W/ch region. It was an immediately obvious change, a sense of unbridled energy that I hadn't experienced since using the over-the-top kW amps from Musical Fidelity. Even with the Sonus Faber Guarneri, known

familiar to many of us as they've appeared in numerous models from a variety of manufacturers. This is the best usage I've heard so far. Moreover, you don't have to be a bourbon-drinking private eye to discern the causal link between Rotel and B&O: Rotel is part of the extended B&W family, and B&W uses the ICEpower modules in its hyper-cool, spherical subwoofer.

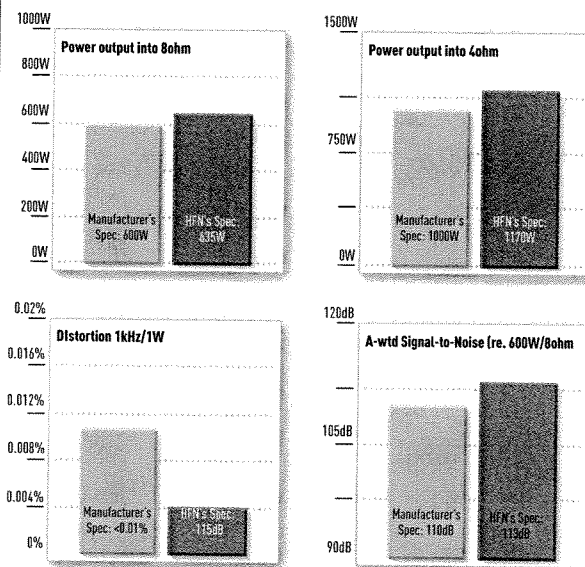
Which also leads us to the home cinema aspect.

The RB-1092 is, after all, a two-channel amplifier, categorically aimed at music lovers. But equally, it is related to the seven-channel RMB-1077 reviewed by Paul in December 2005, though those were rated at 100W per. The RB-1092 was obviously created for those who need more power. Take two or three of these plus an RB-1091 mono amp (same chassis as the RB-1092, but 1x500W) and you have the basis for a truly

**THE REPORT**

**LAB REPORT**

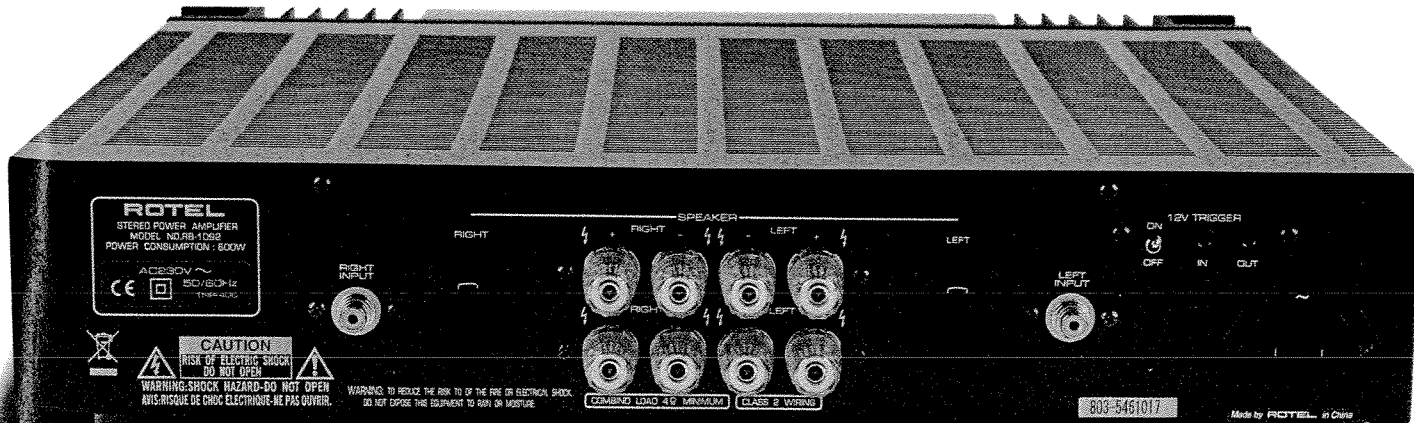
There's no such thing as a free lunch, so the increase in power output (635W vs 125W/8ohm) offered by the RB-1092 over the multichannel RMB-1077 comes at the expense of a slightly reduced bandwidth (-3dB at 40kHz vs >80kHz) and an increase in treble distortion (-0.6% at 20kHz vs -0.2%). But these latest ICEpower modules are very powerful indeed, conferring an output of ~1200W and ~1620W into 4 and 2ohm loads, respectively, through a very modest ~0.03ohm output impedance. There are few speakers that will give the RB-1077 pause for thought! Through bass and midrange, distortion falls as low as 0.002% but, unlike the RMB-1077 whose distortion remains remarkably consistent with changing power output, the RB-1092 sees a slight increase from ~0.005% to ~0.04% at around 20W/8ohm. Whether this has any subjective impact is open to question but, at higher and lower outputs, distortion continues to fall gracefully away. Compare the RB-1092 with the RMB-1077 by downloading our QC Suite reports from [www.milleraudioresearch.com/avtech](http://www.milleraudioresearch.com/avtech).



**HI-FI NEWS VERDICT**

Buying the Rotel will require a leap of faith. A little voice will tell you that you simply cannot drag that much power out of so small a unit. The same voice will tell you that only huge amps from the USA or Germany can aspire to such authoritative performance. It will tell you that a zero has dropped off the price sticker. But if you can live without the final, teenie bits of subtlety, and you have speakers that aren't exaggerated up top, the Rotel RB-1092 will rock your world.

BELOW: Multi-way binding posts make bi-wiring easy while either side of these sit Neutrik Speakon sockets



## TECHNOLOGY EXPLAINED: INSIDE ROTEL'S RB-1092

Rotel is a little coy about the heart of its new 'digital' amplifiers, but the core technology would seem to be a customised version of B&O's ICEpower amplifier module. While Rotel's multichannel RMB-1077 (AudioVision, Dec '05) used seven ICEpower250's, this stereo RB-1077 looks to house two awesome ICEpower1000 modules, visible under their protective screening cages in our inside shot. These are rated at some 1000W/4ohm but, like all ICEpower modules, run very cool indeed thanks to their Class D topology and integrated,

switchmode power supplies. Strictly speaking, these are not 'digital' amplifiers but an 'analogue' design that represents the ongoing amplitude of the audio signal by a series of variable-width pulses. It's called Pulse Width Modulation, or PWM for short. The wider the collective width of these pulses in any given period, the higher is the audio power output. All that's left is to filter this stream of pulses to recover the music signal intact. While this is simple enough in theory, it's here that the engineering can have a real impact on sound quality.

for loving a bit of power, the Rotel simply tootled along, purring merrily regardless of the crescendos it was asked to reproduce. I had to stop looking at the amp itself; the miniature size was *that* disconcerting.

Whatever spell such power casts over us – do we automatically turn hooligan at the wheel of a car faster than the one we normally drive? – the Rotel led me first to a larger, louder work than I would use as my opener. Ordinarily, it's straight to a quiet vocalist. But the Rotel pushed the right button: my current fetish for Mendelssohn's 'Die Hebriden' was accessed. The overture taxed nothing in the system, the Wilson WATT Puppy system delivering

**'I had to stop looking at the amp itself; the mini size was *that* disconcerting'**

all of its majesty and the Rotel never denying it so much as a single decibel. But I soon learned that the Rotel, like every product, has its 'envelope' of excellence. It has been mooted by more than one reviewer that every piece of music has its optimum level. The logic behind this applies especially to live music: if you were sitting in a particular row in a particular hall at a particular concert, the real event would, indeed, yield

a specific level at that point in space. The sensation has been likened to an image snapping into focus, either via the lens of a camera, binoculars, a projector. And it's apt: the Rotel, for whatever reasons, emphasised this repeatedly.

So I performed a loose experiment, with ATI's SLM-100 sound pressure level meter. Using my usual selection of CDs, I found that I played Candido & Graciela's *Inolvidable* 2-3db louder, Kenny Ellis' *Hanukkah Swings!* 4-6db louder and Ray Davies' *Thanksgiving Day* 3-5db softer. Was there a pattern? No. Is this scientific? No. But it was a phenomenon I noted more with the Rotel than any other amp I've tried in recent memory. In practical terms, it means only *one* thing: keep your hand on the remote control when you audition the RB-1092 in-store.

### ON THE LEVEL

Why is this so important? Because the Rotel can act a bit strangely when the level is either too high or too low for a given piece. But this is academic, because any critical listener will *always* set level by ear, to find that comfort zone. What was consistent was the sheer 'bigness' of the sound, a massive stage in all three dimensions, and with rich, fast, crisp bottom octaves that hint at something else which is pure

speculation on my part: this amp was born to work in a multi-channel system fed a fair share of movies. Its 'feel' is for excitement rather than finesse, and it loves a challenge: bombastic music, speedy transients, rapid level changes – none faze it.

### WE LISTENED TO

Claudio Abbado/London Symphony Orchestra: *Mendelssohn Overturen* (Deutsche Grammophon 423 104-20)

Candido & Graciela: *Inolvidable* (Chesky JD249)

Ray Davies: *Thanksgiving Day* (V2 Music 63881-27286-2)

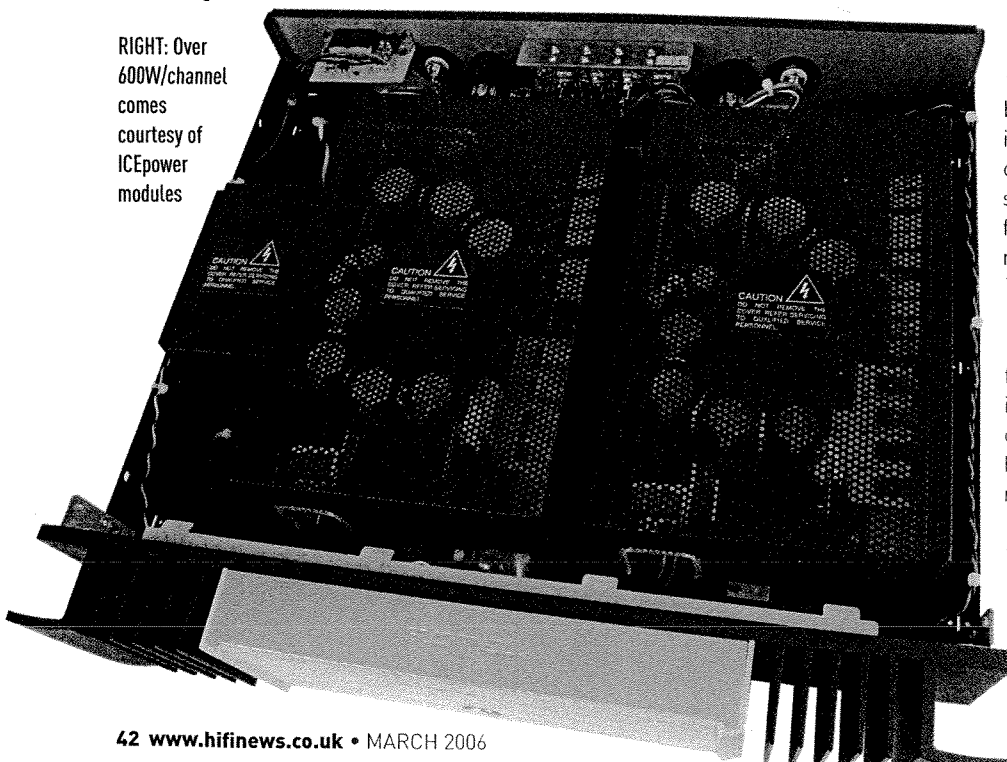
Kenny Ellis: *Hanukkah Swings!* (Favored Nations FNC7040-2)



All of this makes the Rotel a challenging product at a time when blandness is the norm. It could even breathe new life into our jaded old hobby. The RB-1092 is – back to the aforementioned revolution – one of the first amplifiers of the Class-D/post-CE regulations variety for which no apologies need to be made. And any concerns that I have voiced can be addressed by cables, choice of speaker and the mandatory use of a pre-amp with remote volume control.

If you can wrest yourself from prejudices, the Rotel just might be the nicest lifestyle change you've made since re-discovering vinyl and eating more fibre. ▣

RIGHT: Over 600W/channel comes courtesy of ICEpower modules



### REVIEW SYSTEM

- Musical Fidelity kW25, Quad 99CDP II and Marantz CD12/DA12 CD players
- McIntosh C2200 pre-amp
- McIntosh MC2102 power amp
- PMC DB1+ speakers
- Sonus Faber Guarneri speakers
- Wilson WATT Puppy System 7 speakers
- Yter, Acrolink and Kimber interconnects
- Yter speaker cables

### ALSO CONSIDER

- There aren't any alternatives