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Hi-Fi Choice

PASSION FOR SOUND

Issue No. **373**

July 2013

Rockin' Rotel

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30

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Fifteen love

Rotel's 15 series has just got a revamp, and the result is a very classy sounding CD player and DAC/amplifier combination, finds **David Price**

► DETAILS

PRODUCT
Rotel RCD-1570
ORIGIN
Japan/China
TYPE
CD player
WEIGHT
6.7kg
DIMENSIONS
(WxHxD)
431 x 93 x 320mm
FEATURES
• Wolfson 8740 DAC
• 1x RCA phono line output
• 1x XLR balanced output
• Slot-loading CD drive
• Remote control
DISTRIBUTOR
B&W
TELEPHONE
01903 221500
WEBSITE
rotel.co.uk

► DETAILS

PRODUCT
Rotel RA-1570
ORIGIN
Japan/China
TYPE
Integrated amplifier
WEIGHT
13kg
DIMENSIONS
(WxHxD)
431 x 44 x 350mm
FEATURES
• Quoted power output: 120W RMS per channel
• 4x RCA phono line inputs, 1x XLR balanced input, 1x MM phono input
• 1x USB A digital input, 1x USB B digital input
• 2 pairs of loudspeaker outputs
DISTRIBUTOR
B&W
TELEPHONE
01903 221500
WEBSITE
rotel.co.uk

Ahh, Rotel – if ever there was an international hi-fi company, this is it! Although production is based in Zhuhai, China, the 52-year old company has engineering offices in the UK, USA, Japan, Korea and China, and a 60-strong R&D team including design input from the UK.

Back in the seventies, it had a name for big, showy-looking electronics, but by the early eighties the brand was focusing on affordable audiophile kit epitomised by the RA-820BX, which was one of the best budget amplifiers of its era. It gave Rotel a reputation for fettling affordable audio equipment into something quite special that remains to this day.

With extensive digital connectivity, the new 15 series isn't exactly what you'd call an essay in minimalism, but Rotel still asserts strong purist credentials. It claims boldly to "strive to make products which offer astonishing build quality and performance at relevant price points", and that's the big idea behind the RCD-1570 silver disc spinner and RA-1570 amplifier before you here. Costing £700 and £1,200 respectively, they're both mainstream high-quality designs with the emphasis on flexibility as well as sonics.

The new CD player is something of a curio in these complicated times, being one of the few these days not to have built-in DAC functionality. Yes, it is really a traditional, old-fashioned, unreconstructed silver disc spinner! The choice of Wolfson WM8740 DAC chip isn't exactly radical either; it's a justifiably popular design that pops up in many modern machines. Rotel says it is one of the company's favourite DACs of the moment.

The RCD-1570's slot-loading CD drive is a little off the beaten track, and a very nice way to interface with a CD player – superior in my view to a wobbly, plasticky disc tray. The company says, "it was the best performing and most reliable mechanism that Rotel could source". That's as maybe, but the drive mechanism in the RCD-1570 is still slightly noisy – you can hear it whirring around conspicuously when playing a track.

Rotel says: "The case material is of a gauge sufficient enough to reduce the effect of resonances, and the build quality also ensures tight and consistent fit", but it could still do with extra damping in my view. The master clock is said to have had special attention paid to it, using techniques of careful supply decoupling combined with electrical

isolation and rugged construction Rotel says.

Curiously, the RCD-1570 CD player recognises HDCD discs (remember them?) when inserted, showing 'HDCD' on the display instead of the normal 'CD-DA' – but it still plays them as standard CDs. Could this be a ghostly reminder of Rotel's previous love of this format, perhaps?

If the 15 series CD player is 'old school', the new RA-1570 makes major concessions to modernity. Here we have a large, heavy, Class AB integrated amplifier, which has a litany of socketry, starting with the fascia-mounted USB Type A input for playing music from iDevices directly, or via the supplied Bluetooth dongle. Round the back, there's a USB Type B input for connection to a computer, specified for digital music at up to 24-bit/192kHz resolution. The two coaxial electrical digital inputs will also do this, whereas the twin optical Toslinks go up to 24/96. You also get four RCA line-level inputs, a moving magnet phono, plus a pair of XLR-balanced inputs – I use these to connect the amp to the CD player, which also sports them. Preamp

A large, heavy, Class AB integrated amplifier, which has a litany of socketry

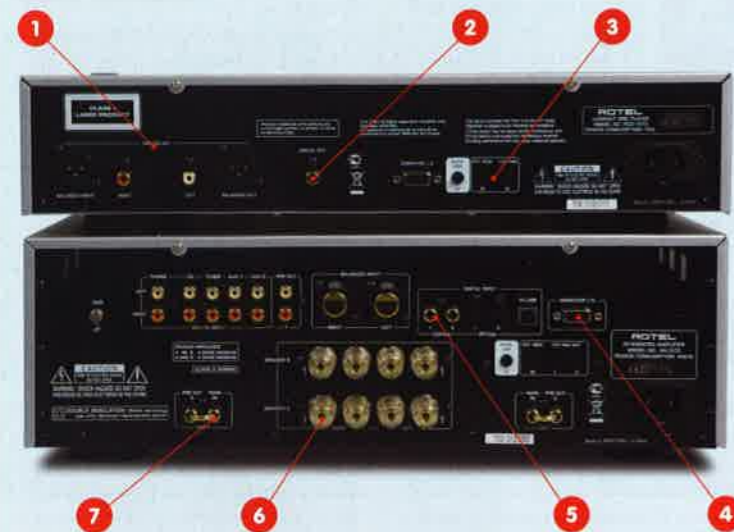
outputs are also fitted, as well as two sets of loudspeaker outputs.

Inside, Class AB circuitry is used because Rotel reckons that "for audiophiles this is currently the better option as it readily allows for tweaking of critical circuits in a way that other types do not".

Multiple discrete Sanken bi-polar output transistors are fitted "for their high power performance and reliability", and there's a Toroidal power transformer that is designed and built in-house by Rotel. This is selected, "because the external magnetic field is normally lower than that from a more conventional EI type of a similar size and specification", the company says.

Together, the 1570s make a pretty pair. The general standard of finish is very good, and the brushed aluminium and polished fascia edges look classy together. The front panel switchgear has a nice, positive gait, although the light blue fluorescent display disappoints slightly – it looks a little crude when compared with the latest generation of OLEDs seen everywhere from Audiolab to Naim ►

CONNECTIONS



- 1 Analogue outputs
- 2 Digital output
- 3 Remote trigger outputs
- 4 RS232 port
- 5 Digital inputs
- 6 Loudspeaker outputs
- 7 Preamp out/power amp in

now. The RA-1570 has a good range of facilities, including bypassable tone controls – accessible via the menu – and it's easy to hook up to a computer, although you'll need to install the supplied driver if you have a PC, of course.

Sound quality

Taking the RCD-1570 CD player on its own, it offers a very animated, musical sound with a strong bottom end. Rather than being 'matter of fact' sounding like many other price rivals, it really gets into the nitty-gritty of the music's rhythms and dynamics. For example, the indie-rock sound of

A truly engaging listen, bristling with detail, yet subtle and composed too

Ultra Vivid Scene's *Special One* comes over as very bouncy and fluent, this player seemingly going out of its way to carry the emotion of the track, and deliver a really punchy, propulsive bass. The result is a truly engaging listen, bristling with detail, yet subtle and composed too.

With classical music, it shows itself to be an expansive performer, blessed with an unexpectedly deep soundstage. Slot in Beethoven's *Piano Concerto No.3* (Scottish Chamber Orchestra, Linn Records) and the player lets rip with a rich, vibrant rendition of this brilliant recording. String tone is as natural as you'll hear from 16-bit, and the rhythm of the music flows along like the widest part of the River Clyde. Moving back to a cooking CD

recording of Lou Donaldson's *Alligator Boogaloo*, and this Blue Note jazz classic comes across in a most enjoyable way. This player is a keen student of rhythm alright, and proves well able to get into the groove and keep the listener's attention – a most impressive party trick at the price.

Swapping to the RA-1570 amplifier all on its own, it proves to be quite open and lively, with plenty of power and an enthusiastically engaging nature. You wouldn't call it the last word in transparency though; compared with others, it's a little opaque across the midband and lacks something in the way of fine depth perspective. This Rotel amplifier focuses on the music's general direction, rather than obsessing on the detail.

Tonally, it proves a little more neutral than its disc-spinning partner, although it's got a fairly well-lit treble that isn't as smooth as some price rivals. Nevertheless, when you partner it with the ever-so-slightly warm matching CD player, the result is a great-sounding twosome. They're both up for diving into a song's rhythm, yet their respective tonalities flatter one another and the result is a big, smooth, punchy sound that's never less than a lot of fun to behold.

Given Rotel's talent for voicing products, I'm sure this is no happy accident – as a pair these two really sing across a wide variety of music.

The RA-1570 also sports a built-in DAC, of course, and this doesn't quite match the sound of the CD player via its analogue outputs, coming over a little opaque and less finished. But via the USB input,

hi-res from a MacBook Pro running Audirvana Plus sounds great – a 24/96 rip of Metallica's *Enter Sandman* is breathtakingly powerful and grippy, with excellent dynamic range and a good deal more punch. The amp is well able to convey the menacing, muscular sound of the production, and makes for an edge-of-the-seat performance. Instruments snap into focus and the soundstage acquires a satisfying depth. As such, the hi-res capability of this amplifier is well worth having.

Conclusion

These components make a nice pair. Rotel's RCD-1570 CD player is great value – it sounds excellent and is very nicely made. Tonally it's a touch on the warm side, and conjures up a spacious recorded acoustic. The RA-1570 amplifier is a fine all-round package, but isn't unbeaten at its price for sound. Still, you get a strong, punchy, musical presentation that's always fun to listen to, and when combined with its matching CD player, really flies. Whether auditioned separately or together as a pair, these Rotels warrant consideration if you're in the market for serious-sounding electronics that won't break the bank.

HOW IT COMPARES

The new RCD-1570 is one of the best CD spinners around at the price, only the Audiolab 8200CD (£800) really worries it – with a more focused and detailed sound. Conversely, the Rotel is a little warmer and more organic sounding, so taste and system synergy play a big part here. The RA-1570 struggles more, as there are so many great amps around – the Creek Evolution 50A (£700) has a cleaner, more insightful and compelling sound, making the Rotel sound a little hazy and slow in comparison. However, it doesn't have a DAC or a phono stage built in, so you'll have to budget more for these. As a pair though, these new Rotels work brilliantly.

Hi-Fi Choice

OUR VERDICT - RCD-1570

- SOUND QUALITY**
★★★★★ **LIKE:** Enjoyably bouncy, natural musical sound
- VALUE FOR MONEY**
★★★★★ **DISLIKE:** Display isn't pretty, slightly noisy mechanism
- BUILD QUALITY**
★★★★★ **WE SAY:** Well built and handsome CD spinner with excellent sonics
- FEATURES**
★★★★★

OVERALL



Hi-Fi Choice

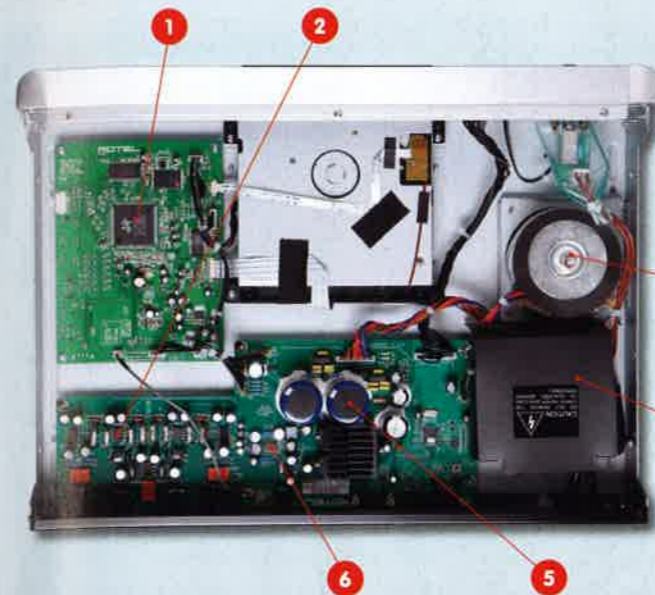
OUR VERDICT - RA-1570

- SOUND QUALITY**
★★★★★ **LIKE:** Good looks, fine build, powerful sound
- VALUE FOR MONEY**
★★★★★ **DISLIKE:** Wot, no OLED display?
- BUILD QUALITY**
★★★★★ **WE SAY:** Capable, well specified and flexible mid-price amplifier with a musical and very satisfying sound
- FEATURES**
★★★★★

OVERALL



ROTEL RCD-1570



- 1 Control CPU PCB assembly
- 2 Analogue filter stages
- 3 Toroidal power transformer
- 4 AC supply filters and stand-by circuits – on a separate PCB
- 5 Power supplies and regulation – the large capacitors are slit-foil types
- 6 The WM8740 DAC

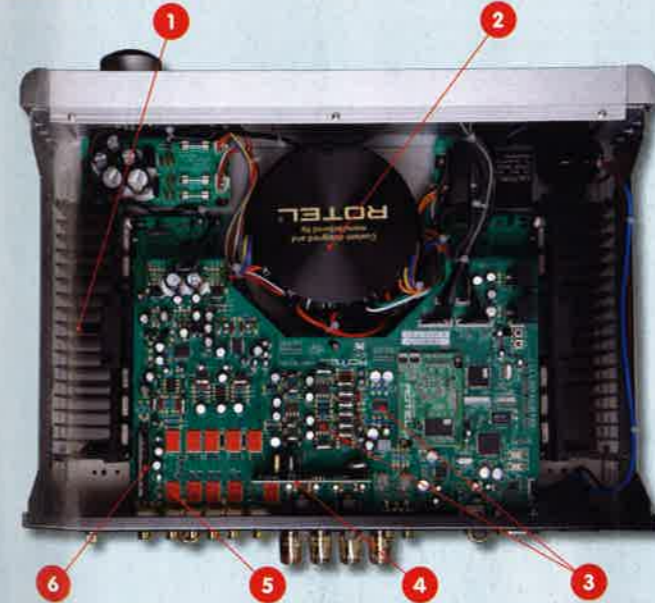
ON TEST

Both this CD player and the digital section of Rotel's partnering RA-1570 amplifier employ a Wolfson WM8740 DAC and while there are similarities in their performance, there are also key differences. The RCD-1570 is necessarily 'tuned' for 44.1kHz/16-bit operation, but it shares the same low frequency response roll-off (-0.45dB/

20Hz) with the RA-1570. It also shows the same increase in harmonic distortion at these low frequencies (0.0024% at 1kHz to 0.016% at 20Hz) – a feature that may not be unrelated. Again, the player offers a similarly wide 110dB A-wtd S/N ratio, once we compensate for the high 4.2V max. output from its balanced XLRs.

On the other hand jitter, both correlated and noise-like, is rather higher at over 1,000psec through the RCD-1570 than the 350psec incurred by the digital section of the RA-1570. But the player's low 96ohm output impedance is preferable to the amp's 430ohm RCA pre-out and stereo separation is better at 20kHz. PM

ROTEL RA-1570



- 1 Output stage heatsink (right ch)
- 2 Toroid power transformer
- 3 DAC and filter circuits
- 4 Vertically mounted balanced input stages
- 5 Relay input switching
- 6 Vertically mounted phono stages

ON TEST

Various of the RA-1570's digital S/PDIF characteristics are covered off in the report above, although its frequency response with higher sample rate inputs obviously exceeds that of the CD player (-0.35dB/45kHz with 96kHz and -4.7dB/90kHz with 192kHz digital audio). The USB input is inferior to the conventional S/PDIF option, not least

because the Windows PC drivers appear to truncate hi-res audio to a (16-bit) 95dB A-wtd S/N ratio. The analogue amplifier itself is much more impressive, beating its 120W rating to the tune of 2 x 150W/8ohm and a mighty 2 x 250W/4ohm and with sufficient headroom to accommodate 190W, 355W, 630W

and a full 970W into 8, 4, 2 and 1ohm loads under dynamic conditions. It's a real powerhouse! Distortion is held in check at 0.0006-0.0014% over a full 1-120W range through the midband, increasing slightly with frequency to 0.007% at 20kHz (re. 10W/8ohm). The response is amazingly flat to within -0.2dB from 20Hz-100kHz. PM

Q&A

Shaun Marin
Brand Manager B&W Group Ltd



DP: What are the overall aims of the new Rotel 15 Series?

SM: Rotel strives to make products which offer astonishing build quality and performance at relevant price points – coupled with an extensive feature list, which these days includes digital connectivity. These new 15 Series models continue this theme. The competition varies from category to category: it's different when talking about integrated amplifiers as compared to AV processors; and in some cases it differs from country to country. We sincerely believe that the sonic performance of Rotel products is appreciated by audio enthusiasts and music lovers all over the world.

What interesting features does the RCD-1570 boast?

It has a slot-loading CD drive, used most importantly it is the best performing and most reliable mechanism that Rotel could source. Secondly we think that a slot-loader enhances the look of the CD player. Special attention has been paid to the master clock using well-known techniques of careful supply decoupling combined with electrical isolation and rugged construction. The use of Wolfson's 8740 DAC allows Rotel to carefully select the external filters and surrounding components. This iterative process of tuning is what gives Rotel the audio clarity required to wear the 'Rotel' logo.

Has special attention been paid to the RA-1570's circuitry?

It's an 'open secret' that Rotel spends many, many hours of development time ensuring that the electronic parts that are installed in every product are selected to enhance sonic performance. Inside, you will see selected conventional leaded electronic parts from a variety of manufacturers, plus others in the digital areas, where SMT components are often the norm. This aspect of Rotel design development is probably unique for a manufacture of its size, and Rotel is careful to make use of tried and tested in-house circuit architecture to provide a thoroughbred combination of performance and reliability.