TURNTABLE

Belt-driven turntable with electronic speed control Made by: T+A elektroakustik GmbH & Co. KG, Germany Supplied by: Kog Audio, UK Telephone: 01353 721089 Web: www.taelektroakustik.de Price (including arm & MC pick-up): £4719

AUDIO FILE

T+AG 2000 R

T+A's new turntable may look simple on the outside, but has hidden depths. It comes as a package with two arm and cartridge choices, plus optional internal phono stage Review: Adam Smith Lab: Paul Miller

urntables have arrived with many surprising features over the years, but the new G 2000 R from the German company T+A, introduces a new one, for on its rear panel are two RJ45 sockets, which are most commonly used for Ethernet connections! But I was rather pleased to discover the G 2000 R is not the latest intelligent addition to the burgeoning 'Internet of Things'. Rather, these sockets are for connection to a T+A amplifier's R2-LINK remote control system.

That is not to say that the G 2000 R is just another plain turntable – far from it. Indeed, this new addition to the company's R-Series line-up offers a surprising number of possible configurations. In its most basic form, the deck comes complete with a Rega RB251-based arm and retails for £3187. An Ortofon 2M Bronze MM cartridge can be added to this for a total of £3432 (representing a £30 saving over buying the cartridge separately).

INTEGRAL PHONO PREAMP

The 'high-end' variant under review here was supplied with a Clearaudio-sourced 'Carbon 2' tonearm for £3767. As before, a cartridge can be added and this is also a Clearaudio-based design, designated the MC-2, and bringing the total to £4719.

The deck may also be pre-fitted with either an integral MM or MC phono preamplifier, which adds a further £524 to the price. Both offer an impressive array of gain and loading adjustments [see boxout – facing page].

The turntable itself is built into a sturdy MDF base that's covered in a sleek black or silver aluminium skin bonded directly to the inner structure. The aluminium is also a 'sandwich' construction, which is claimed by T+A to greatly absorb and suppress vibration and resonances. In addition, the plinth sits on four special shock-absorbing feet but these are not adjustable and so

RIGHT: The G 2000 R is available in both black and silver finishes. Further options include a 700g record weight and a magnificently retro brass and horse-hair record cleaning brush! care needs to be taken that the supporting surface is stable and level.

The diecast aluminium platter, which is topped-off by a thick silicone rubber mat, weighs in at 3.8kg and this is belt-driven via a zinc inner platter. The motor is a quartzcontrolled AC-synchronous type that's further improved by a DSP-based control circuit of T+A's own design. This fine-tunes the voltage delivered to the motor coils for as smooth a ride as possible – even during start-up, when the motor torque is carefully controlled as it builds up speed. As you might expect, speed change is electronic and set by front panel buttons.

While the company's claim that the resultant wow and flutter is 'no longer measurable' might seem a little optimistic, PM's Lab Report [p47] certainly suggests that the system works very well indeed. An additional bonus is that the deck is relatively immune to voltage and frequency fluctuations on the mains supply. Meanwhile, and as I've mentioned, while this model's arm is sourced from Clearaudio a special variant is used for the G 2000 R – there's a definite resemblance to the Satisfy model but the arm-rest and cueing outrigger are different and more magnets are used on the anti-skating system. The arm still uses a woven carbon fibre tube, however, and the simple but effective angled cartridge mounting platform is retained.

The 'MC-2' pick-up itself bears more than a passing resemblance to Clearaudio's Essence MC. The two share a micro-line stylus, 8g overall mass and a 2g recommended tracking weight, although the MC-2's output of 0.75mV is substantially greater than the 0.4mV quoted for the Essence. Once again this proves that the differences amount to more than just a T+A logo on the front!

Naturally, a lid is provided to round off the package but this simple item locates over the turntable spindle and extends to cover the arm. There's a clever touch in





the location spigot to the right of the arm, which means the lid is held still and cannot move even if you accidentally start the platter with it in place.

Finally, two optional extras are available at £210 each: the 700g AG-10 record clamp and a wonderful nod to vinyl's heyday in the form of a record-cleaning 'dust bug'. This item, called the PB-10,

features a brass stand and horsehair brush to scoop-up dust from the record during play!

Phono output sockets and a grounding post are to be found on the rear panel, along with the IEC mains inlet and

those RJ45 R2-LINK sockets. This allows the deck to be remote controlled from a T+A amplifier, or to wake the amplifier from standby when the platter is started. As we've come to expect from HFN's experience of T+A's other separates, the deck is superbly finished and an absolute pleasure both to set up and use.

EASE AND AUTHORITY

Within minutes of spinning up the G 2000 R, I realised that we were going to get

along famously... The deck sounds evenhanded, neutral and poised, but is also unafraid to boogie when required. So while this outer veneer of sophistication bears out a very well-engineered design, don't let me suggest this is a mere 'cerebral analysis machine' lacking any kind of joie de vivre.

It's certainly reasonable to expect more detail and depth from LPs with a costly deck, but a sense of

'With a "Mr Hyde" character, the deck proves a real party monster'

musical fun is just as important. In this case the sound is very easy to tweak, of course, simply by switching the load and gain settings of the integral phono stage around those recommended for the pick-up. Either way,

it transpires that the G 2000 R has something of a Jekyll and Hyde-type character, but rather than Mr Hyde being evil he's more of a party monster.

Give the G 2000 R something refined to play and it rewards effortlessly. The drive system is stable, conferring solidity onto proceedings and ensuring that the sonic picture is vivid and detailed. Some turntables offer impressive soundstage depth, some offer a more 'wide-angle'

ABOVE: Three buttons on the front panel confer operation and speed change. Beneath the aluminium skin, the deck's inner structure is MDF and it sits on four shock-absorbing feet.

presentation, but the T+A seemed to favour neither extreme. Instead it offered a very fluid and insightful sound located securely between my two loudspeakers.

Vocalists benefited greatly from the G 2000 R's airy midband spaciousness. Singers like Diane Schuur were drawn from the groove with mellifluous ease but also with an underlying authority, so tracks like 'Love Dance' from the Diane Schuur Collection [GRP Records GR-9591] had a gloriously emotive and heartfelt central performance, underpinned by a fulsome backing track. Abraham Laboriel's bass line, in particular, provided a firm guiding hand.

SWEET TOP END

At the top end, treble was open, sweet and, again, superbly detailed. Cymbals came across with a firmly defined initial strike, a deliciously metallic ring and a smooth fade-off into the distance. The G 2000 R will also pull finer details from the back of the mix and ensure they're not buried under the main musical action. \ominus

PACKAGE DEAL

Although T+A's amplifiers have the option of fine phono stages, the company is keen to encourage the fitment of its internal phono preamp to the G 2000 R. Integrating deck and phono stage keeps signal paths very short and minimises the opportunity for hum or other noise to creep in. Two phono stages are available; one for MM cartridges with five sensitivity ranges, from 1mV up to 10mV or greater. This version also has switchable capacitance with no fewer than 16 choices from 100-500pF. The MC stage is just as comprehensive with nine gain settings covering values from 100-2000µV (2mV) and a further nine input resistance settings from 15-650ohm. On both units, selection is made using small DIP switches that are accessible through cut-outs in the turntable's baseplate. This isn't my favourite way of doing things but seems acceptable in this context - after all, most users won't be swapping cartridges with reviewer-like regularity.



TURNTABLE



ABOVE: At the rear of the unit are output phono sockets and a grounding post, plus an IEC AC mains connector. The two RJ45 sockets are for remote control link to a T+A amplifier, and not an Internet connection for you to upload your LPs to YouTube...

On more than one occasion, a softly played background instrument proved more evident than I was accustomed to, avoiding any sense of just a few main instruments playing with others forgotten behind. Rather, each piece of music was a beautifully cohesive whole.

A DISDAINFUL EASE

This spaciousness added a superb concert-hall feel to classical material in particular. 'Mars, The Bringer Of War', from Holst's The Planets, with the Boston Symphony Orchestra under William Steinberg [Deutsche Grammophon 419 475-1] rang out confidently as the G 2000 R followed the action around Symphony Hall with the tenacity of a bloodhound, swapping between the various orchestral sections with real verve. The dynamic abilities of the deck were also showcased by this piece as it moved effortlessly from whisper to climax with an almost disdainful ease.

Fed something funkier, however, and the G 2000 R's inner mischiefmaker came out to play and had a whale of a time. The solid backing track underpinning Caro Emerald's 'Back It Up' from the 2010 album Deleted Scenes From The Cutting Room Floor [GrandMono STEMRA GM006] was punchy and timed to perfection. As a result, the track bounded along with gusto but at all times led by Miss Emerald's vocals, which were solid and clear. T+A's top-end deck tells you that, yes, it can have fun with the best of them, but it'll never lose the mastery of detail and soundstaging expected at this price level.

Arguably, T+A's well-engineered drive setup and intelligent motor control system made its presence most keenly felt at the low end of the spectrum. In short, its exemplary bass performance ensured the lowest bass notes were handled with confidence and weight – kick drums had gloriously solid impact and precise timing.

Equally, however, the upper bass was clean and open, with no sense of the artificial bloom that can make for an initially pleasing warmth but one that soon starts to turn swampy.

Perhaps because of this compelling combination of abilities, the G 2000 R still holds its own when fed with a less-than-perfect pressing. Ironically, budget decks often fare well here because they can subtly mask the records' deficiencies while the cream of the high-end succeed by working through to the music within.

Once again T+A's G 2000 R showed its class by taking the 'high-end' route of dealing with imperfect pressings, and so the likes of Sausage Records' reissue of U S Warren and the Genghis Pea's 'Hard Headed Woman', first released in 1972 [SAUS 006], proved to be an absolute rocking delight. (b)

HI-FI NEWS VERDICT

£5000+ is not exactly small change for a turntable, but spending it on T+A's G 2000 R buys you a superbly engineered and beautifully built motor unit with high quality arm and cartridge. Top this off with its very capable and versatile integrated phono preamp and the results are, as one might expect, exceptional. When it comes to plug-and-play vinyl front ends, it doesn't get much better than this.

Sound Quality: 86%										
0	-	-	-	-	-	-	-	-	100	

LAB REPORT

T+A G 2000 R

Tested in the lab without T+A's optional PH-G R MC phono stage, the G 2000 R deck put in a resolutely solid performance. The synchronous AC motor brings the 3.8kg diecast platter up to speed within five seconds – its accuracy good to within 1.5Hz at the 3150Hz test frequency (or an inaudible +0.04% absolute error). Cyclical speed variations amount to a peakweighted total of 0.06% with some mild low-rate wow occurring ~3Hz [see Graph 1, below]. Rumble from the polished steel spindle/bronze bush bearing is very low indeed at -71.4dB (DIN-B weighted) and that from the LP groove itself only fractionally higher at -70.2dB – all figures that would be quite in keeping with many more exotic, 'high-end' turntable designs.

The partnering Carbon 2 tonearm, built to T+A's specification by Clearaudio, is evidently derived from the brand's earlier 9in Satisfy arm and equipped with a woven carbon fibre tube with fully adjustable alloy headshell. The 9g effective mass makes it very compatible with the optional Ortofon 2M Bronze and Clearaudio MC2 pick-ups while its resonant behaviour is impressively benign [see Graph 2, below]. The principal tube resonance occurs at 130Hz and there is a cluster of harmonics/torsional modes at 236Hz, 285Hz, 315Hz and 355Hz. All these are of mercifully low-Q while any mid/high frequency breaks of the sort seen with less well-damped carbon tubes are, in this instance, rapidly dispelled. All-in-all, this is a very cleanly-engineered combination. Readers may view full QC Suite reports for T+A's G 2000 R turntable and Carbon 2 tonearm, when available, by navigating to www.hifinews.co.uk and clicking on the red 'download' button. PM



ABOVE: Wow and flutter re. 3150Hz tone at 5cm/sec (plotted ±150Hz, 5Hz per minor division). Absolute speed is excellent and flutter is impressively low



ABOVE: Cumulative tonearm resonant decay spectrum, illustrating various bearing, pillar and 'tube' vibration modes spanning 100Hz-10kHz over 40msec

HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.35rpm (+0.04%)		
Time to audible stabilisation	5sec		
Peak Wow/Flutter	0.04% / 0.02%		
Rumble (silent groove, DIN B wtd)	-70.2dB		
Rumble (through bearing, DIN B wtd)	-71.4dB		
Hum & Noise (unwtd, rel. to 5cm/sec)	-61.0dB		
Power Consumption	8-11W (3W standby)		
Dimensions (WHD)	460x160x380mm / 14kg		