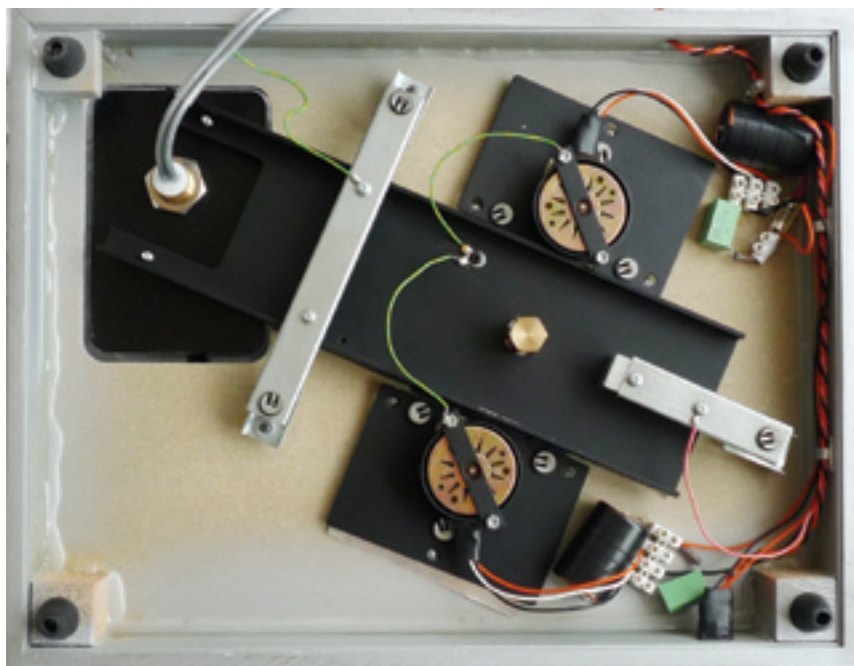


# Audio Note (UK) TT-2

AUDIO NOTE UK'S EXTRAVAGANTLY COSTLY *TT-3* TURNTABLE REDEFINED VINYL REPLAY FOR MARTIN COLLOMS IN *CRITIC 9*, SO HOW DOES ITS REAL-WORLD-AFFORDABLE *TT-2* SHAPE UP?



Above: TT-2 underside, showing dual motors on two separate chassis'

Right: TT-2, acrylic platter removed



Although the loan of Audio Note UK's *TT-3* turntable reviewed in *HIFICRITIC Vol2 No3* was both unplanned and unexpected, its extraordinarily impressive sound quality proved such a revelation, setting a benchmark standard of performance for the group test of much less expensive models in the same issue, we thought it would be sensible to check out the latest version of same company's *TT-2*. Built on a strong MDF plinth supported by conical rubber feet, it has the same engineering and build as the earlier *TT-2*, but is currently undergoing some cosmetic improvements.

At £1,000 (excluding tonearm), this turntable is just one-thirtieth the cost of its very expensive big brother,

and is pretty close to the price range of the turntable in the aforementioned group test. Our sample came fitted with a £500 silver-wired *ARM Two* variation on the popular Rega *RB250* tonearm theme, which includes a 0.8m pure silver output cable (AN 20-strand silver Litz). A rather resonant moulded plastic lid is supplied, and as usual the player sounded rather better with it removed.

The *TT-2* (and *TT-1* for that matter) are developed from Peter Dunlop's renowned Systemdek *IIX*. Much of the original remains, such as the steel coil spring suspended subchassis with properly centred dynamic mass, including balance for the tonearm mass. The cross-shaped chassis has a main U-section alloy extrusion and steel cross-arms. While the original *IIX* (and the *TT-1*) have a single motor, for the *TT-2* Audio Note UK has added a second motor diametrically opposite the first and located almost beneath the cartridge; this second motor has a mu-metal plate shield to try and minimise hum. The single neoprene cord tightly couples the Lexan inner platter hub and the two motor pulleys, with virtually no slip. Although it's not electronic, money has been spent on power arrangements, the necessary synchronous phasing components including polypropylene and foil-in-oil audiophile capacitors plus selected resistors. The second pulley diameters provide 45rpm.

Thanks to their rubber decoupled chassis', the motors produce little mechanical noise. The main platter, also of Lexan, has a machined indent for the centre label and is intended for direct LP contact. Depending on VTA and the cartridge choice, you could (and we did) also try a thin felt mat. With a relatively low mass platter and abundant torque, it reached speed very quickly, almost as rapidly as the fabled Technics *SP10 Mk2*.

Correctly set up and levelled with the chassis properly balanced, the platter should and will oscillate slowly and positively in the vertical plane, exhibiting the preferred degree of freedom well known to Linn owners. This offers minimal spurious excitation and consequently least scrub flutter at the stylus tip. Many sprung-subchassis players cannot be balanced in this way, while such resulting spurious rocking and rotations subtly degrade good timing, clarity and low level resolution.

The Teflon centre spindle is slightly over sized and proved a tight fit with one or two LPs. LP support options do affect sound quality: hard contact may deliver a cleaner, brighter sound, perhaps better matched to CD replay, with crisp even bass lines; felt may give a more relaxed result, showing better low level decay and resolution plus a sense of better timing and integration.

## Sound quality

Bluntly, the *TT-2* falls far short of the heady performance heights achieved by the *TT-3*, so in order to put it into a more realistic context we returned to the four turntables reviewed in *HIFICRITIC Vol2 No3*: Rega *P7*, Project *RPM10*, Thorens *TD 160HD* and Roksan *Radius 5*, supplemented by a £4,500 Linn *LP12-Lingo*/Naim *Aro*/Koetsu *Red T*. The *TT-2* was initially fitted with an Audio Note *IO MkII* moving-coil cartridge.

As initially installed, the *TT-2* delivered promising rhythm and timing with moderate bass and midrange dynamics alongside a distinctly bright treble. Clarity was rated 'good plus', as was image depth and focus, but taking the lid off completely significantly improved dynamic expression. Swapping the cartridge for a *Red T* brought a more familiar balance, but the (admittedly much more costly) Linn delivered superior transparency and more convincing dynamics. We then fitted a thin felt mat, and heard a more familiar treble balance, superior image depth and low level resolution, plus clearly superior midrange dynamics and a more rhythmic and tuneful bass. There was also a more convincing weight and scale to the replay, and an underlying trait which it undoubtedly shares with the *TT-3* (though not to the same degree) was now more obvious. The *TT-2* has an exceptional degree of locked-in, hard-driving timing, which adds considerable power to a musical performance. Once appreciated, it's hard to go back, and in this particular respect it beat the Linn on a parameter that is one of the latter's acknowledged strengths. Although it's thoroughly rewarding on classical material, the *TT-2* joins a select few that also really know how to rock.

## Test report

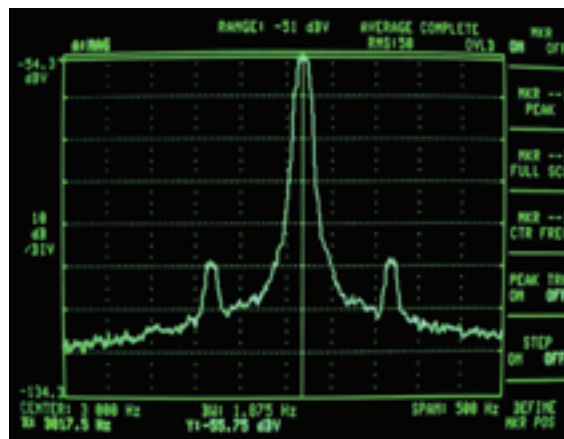
This is a suspended subchassis design so external vibration breakthrough is generally well controlled, but because the belt operates at a relatively high tension some motor noise breakthrough may occur through this route. Speed accuracy was found to be 0.57% fast, which can add to the subjective impression of good pace. DIN weighted wow and flutter measured a quite low 0.055% – a better figure might possibly be obtained with a choice of lower belt tension. With its fast start up to speed time of less than 0.5 seconds, belt slip is obviously not an issue, and the high torque provided by the twin motors delivers very good speed stability under load with no indication of dynamic wow. The spectrogram revealed some 100Hz flutter sidebands at -48dB, which is a reasonably low level, and further listening tests showed good bearing rumble suppression.

As one of the motors sits immediately beneath the

path of the cartridge hum variation was checked. From the quiet rest position to when cued onto the disc the hum increase is a significant 16dB. Relative to the standard 5cm/s reference, hum rates 'just satisfactory' at about -50dB (with *IO* moving-coil cartridge), while the A-weighted signal-to-noise ratio is sufficient. While we did not hear significant hum, a reduction would be advantageous; the 2008 series now has improved hum suppression.

## Conclusion

While minor flaws include the resonant plastic lid, the short arm cable (please charge a bit more and extend it from 0.8m to 1.2m!), and some low level hum from the second motor, the effective vibration isolation provided by the fully sprung and stable suspended subchassis is a key attribute. The powerful torque from the balanced twin synchronous motors all but eliminates dynamic wow, and the tonearm's fine transparency is enhanced by the Audio Note silver wiring, so the end result is an LP platform which delivers substantial musical enjoyment. A little lightweight in character, it nevertheless provides fast, driving, tuneful bass, very good rhythm and timing, and stable focus with well dimensioned stereo images. It clearly represents good value, bringing considerable listener involvement to the replay of all kinds of music, and may therefore be confidently recommended.



100Hz flutter sidebands at -48dB DIN

## TURNTABLE TEST RESULTS

Make Audio Note	Date 20/06/08
Model TT-2	Ser. No. N/A
DIN Wow+Flutter	0.055%
Speed Accuracy error	+0.57% fast
Start up time to speed 33rpm	<0.5s Quick start
Arm type/resonance	ARM Two Rega RB250 Very good
Vibration breakthrough	Very good
Price (UK)	£999 + £500

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