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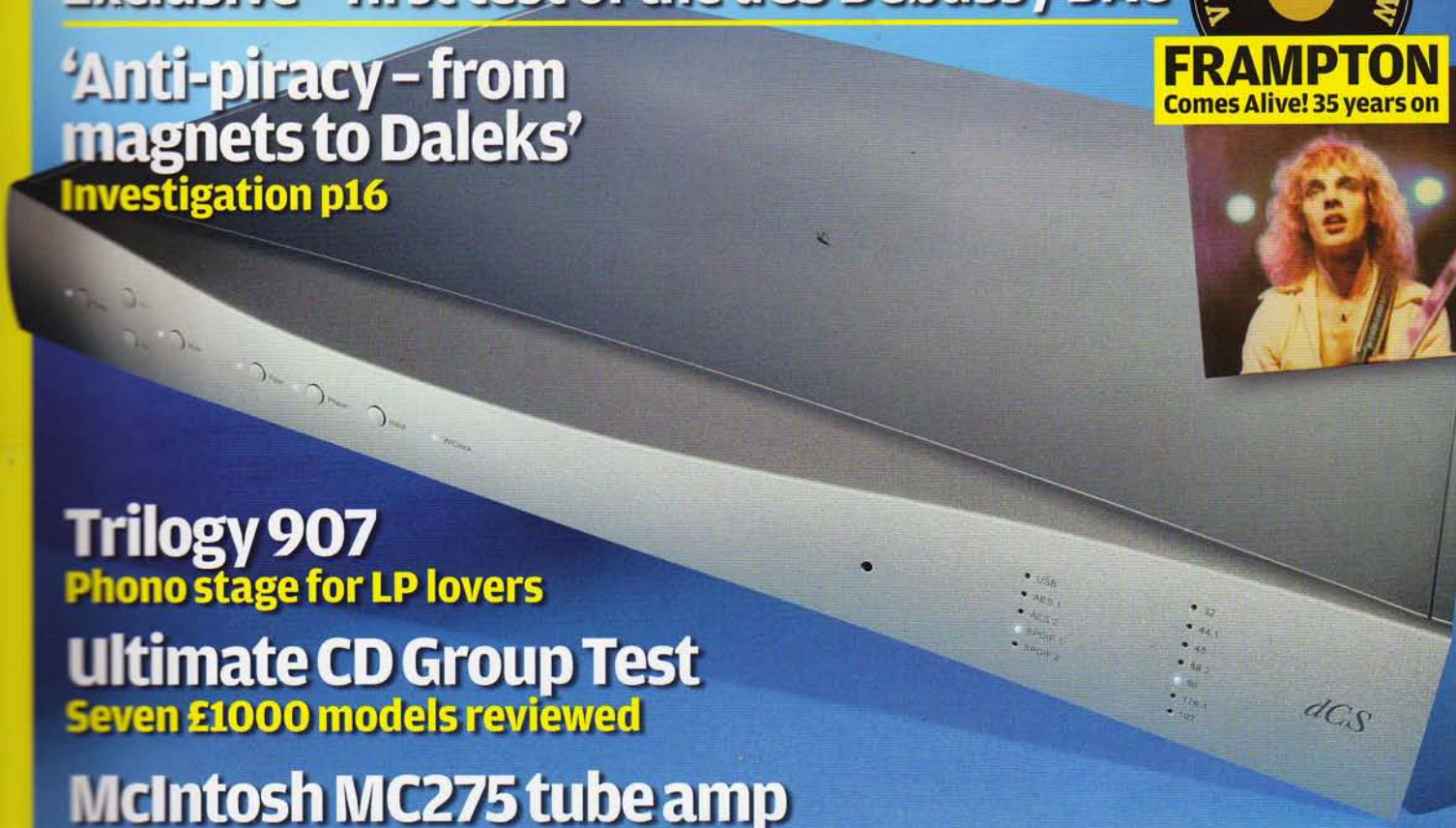
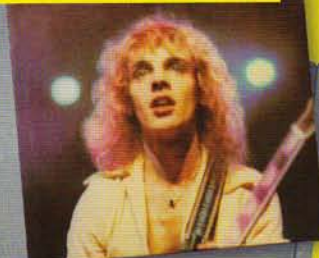
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EAT Forte S turntable

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EAT Forte S (£5200 with arm)

EAT has wasted no time in following up its impressive debut turntable, the Forte, with the simplified, less costly S version, with a single plinth and two onboard motors
 Review: **Ken Kessler** Lab: **Paul Miller**

Turntables are intrinsically 'retro', no matter how you style them. But as radical and far-removed as the Continuum, various SMEs, Avids, Clearaudios, the Spiral Groove and other ultra-modern decks are from wooden-plinth'd icons of yore, for many audiophiles there's something to be said for a turntable that *looks* like a turntable. Pro-Ject launched the 'Classic Line', in homage to the great Micro-Seikis of 40 years ago, while Linn's LP12 is almost indistinguishable from a 1972 original.

EAT's first Forte turntable boasted a beautiful, rectangular wood-veneered plinth that could have been fashioned by any of a few dozen Japanese manufacturers in 1978, but the nod to decks of yore has not been allowed to compromise the need for contemporary capabilities. Launched at CES 2009, it appeared simply to be an oversized take on tradition. Once you got past the vast wooden expanse, you saw two separate chassis, with the narrow one to the left containing two motors and the associated electronics, and the main plinth supporting the platter and arm.

SCALING DOWN

Enhancing its impressive presence, beyond Broddingnagian girth, was a 400mm platter, itself weighing a mighty 20kg. With a five-figure price tag, however, it was clearly aimed at those devoid of financial constraints. EAT's goal was to halve the price, for a model accessible to a greater audience. Yet even with a cost reduction, minor simplification and a more compact but still considerable footprint – the Forte was 770mm wide! – the 'S' still falls into the high-end category in every sense.

Like its sibling, the Forte S is a mass-loaded turntable. Despite the significant change to housing the control electronics and the two motors/pulleys in the same chassis as the platter and arm,

RIGHT: Drop-dead gorgeous yet minimalist looks, sophisticated controls for its two speeds, twin motors, outboard power supply and – for this review – Pro-Ject's 12in Evolution arm

the smaller S weighs a hefty 40kg overall, thanks to the plinth's loading of metal-filled sand. It is supported by height-adjustable magnetic feet, which act as a subchassis of sorts. Their efficacy was impossible for me to assess because my room is built like a bunker, and I used the Forte S on the equally butch GM Accessori table, so it wasn't going anywhere. As for needing to adjust the height, the deck weighs so much that it's virtually self-levelling.

For those who cherish EMTs and other broadcast-grade turntables, there's something reassuring about an enormous platter extending beyond the edges of the LP. The Forte's 400mm slab has been reduced to a still-impressing 360mm, with a weight reduction from 20kg to 15kg. But as I've said, the Forte S still weighs 40kg so it remains a bulky two-man lift.

According to EAT's CEO, Jozefina Krahulcova, in a charming accent somewhere in-between Eva Herzigova and Rosa Klebb, 'You could say: double size of diameter and four times more effective sound. The platter uses Sorbothane

damping inside and has a black damping mat produced from recycled vinyl: a perfect interface for the record, that makes the platter completely quiet.

'Supporting this is an inverted bearing,' she told me, 'with an oversized, polished shaft. A ceramic ball is used on the top because it is very hard and inert. The pressure on the ball is reduced by two neodymium magnets that hold the platter and take over most of the load.'

'Due to the magnets we can still move a large mass allowing the bearing to see virtually no pressure. This avoids rumble. A mass-loaded platter usually causes high levels of rumble. Usually high pressure would cause the bearing to wear out over time. This does not happen because of the very low pressure created by the use of the magnetic system.'

TWO MOTORS

For motors, EAT again fits two AC units which, Jozefina explains, 'use a sophisticated electronic circuit to create 100% clean AC. Motor energy is absorbed





by using a sandwich system of metal and MDF. We decided to use a dual motor design to eliminate noise in the motor. By using two relatively weak, but silent-running motors, we achieve perfect torque. Each drives the platter with special silicon strings.'

Jozefina wanted a turntable that was inert. From the ground upward, there is decoupling via the magnetic feet, the MDF chassis is filled with the aforementioned metal sand, unwanted energy from tone arm and cartridge is absorbed by the Sorbothane that isolates the tone arm base, and energy from the belt is also absorbed by the platter mass.

Operation consists of three buttons to select 33.3 or 45rpm and on/off. Each is accompanied by an illuminated dot, which flickers when the speed is selected, settling down to a constant green glow once speed is achieved. Also supplied is a record puck, while the outboard power supply connects to a dedicated rear socket.

Pre-fitted to the review Forte S was the 12in Pro-Ject Evolution arm, with carbon-fibre arm-tube; the review sample was finished in the optional Makassar veneer. Complete with the Evolution it costs £5200, or without arm £4390. It's also

available in Piano Black for £4650 with the same tonearm or £3850 without.

HANDS TO THE DECK

With Blue Angel cartridge in place, feeding an Audio Research PH5 phono stage and Ref 5 preamp, Quad II-eighty mono amps and Wilson Sophia 3s, the Forte S felt right at home. Yes, that made for a system on the wrong side of £40,000, but, hey, what's that against a university education, care for a senior citizen or much-needed surgery? It sounded great.

But post-haste I made a discovery that slightly soured the experience until I spoke to the designers. While determining the perfect level of torque, even with a brace of motors, they optimised it for 33.3rpm. So, when moving to 45rpm, sometimes the deck would shimmy a bit, needing a little 'help' in the form of a hand-spin to the platter. They felt it a small price to pay for greater performance at the lower, more popular speed. Now I hardly find this to be an inconvenience on a par with decks which could, on occasion, spin backwards, but it was my duty to point it

ABOVE: The massive Forte S is a two-man lift, thanks to the oversized, extra heavy platter. Details include substantial feet, soft-touch speed controls and choice of arm cut-outs

out... especially as I needed that higher speed to hear the astounding new transfers from Analogue Productions of Nat 'King' Cole's finest LPs, to 2x45rpm status. And that little shove made all the difference, for the sounds of 'When I Fall In Love' and 'Stardust' – two peerless masterpieces – in

all of their Capitol glory, were revelatory.

Those who have heard 1950s Capitol A-list LPs know that they represent possibly the finest capturing of sound in the history of recorded music.

'The deck weighs so much that it's virtually self-levelling'

No, that's not my hyperbole: countless audiophiles feel their sound rivals Mercurys and Shaded Dogs and the like. So deathly quiet is the Forte S's disc handling that switching to SACD barely rewards the listener with a notable reduction in background noise. If you value quiet grooves and the banishment of tracing noise, the Forte S is a champ, especially if you use a locking clamp.

(In fact, the clamp normally supplied with this deck was lost in transit, so I used a variety, including the excellent Thorens multi-part device. The Forte S was so highly-tuned and precise that I could hear the differences each time.)

While the lush orchestral backings that characterise NKC LPs of this period bless any sound system permitted to reproduce them, the single most vivid element is the velvety voice which wafts from the speakers like the scents of autumn. Cole treated his voice like the musical instrument it was, with wavering

FROM VALVES TO DECKS

Jozefina Krahulcova founded EAT (EuroAudioTeam, to give it its full name) after working with Aleša Vaic Vacuum Technology. Older heads will recall their luxury-grade VAIC tubes, made in Eastern Europe in the mid-to-late 1990s. JK appeared in 2002/2003 with her own versions called Cool Valves, the line-up now consisting of KT88s, 300Bs and ECC83s/12AX7. Jozefina augmented these with Cool Dampers, beautifully-made metal-and-rubber cylinders that slip over smaller tubes to aid in both cooling and damping. Not content with producing only tubes and the dampers, Jozefina launched the ambitious Forte turntable at CES 2009, with two outboard motors and two belts; the S is the simplified version. If you're wondering how she segue'd so smoothly into turntable manufacturing, Jozefina married Heinz Lichtenegger this year. And Heinz owns Pro-Ject.

TURNTABLE

LAB REPORT

EAT FORTE S (£5200 with arm)



ABOVE: The tonearm cable exits below the plinth and is trimmed according to the arm fitted. The recessed 3-pin connector is for the remote power supply

touches, modulations, carefully positioned sighs. 'Stardust', one of the five most-recorded songs in history, becomes a mini-movie, everything *Love Story* and a million chick-flicks try to convey.

Via the Wilsons, the Forte S placed the lavish, silky strings behind Cole, a diaphanous curtain from wall-to-wall. Little sweeps, crescendos – no rasps, no squeaks. The voice hovered. I thought: no way can this date from '57! A warm, poignant 'Ain't Misbehavin' that would have thrilled Fats Waller, a reading of 'At Last' that surely inspired Lou Rawls, with those swelling strings... a seamless, shimmering sound, in possession of stage depth that would impress James Cameron.

NOD FROM A RIVAL

But those were gentler times, and the Forte S exists in the here and now. The vinyl of Keb' Mo' could not upset the Forte S's lowest octave composure, while the bottleneck guitar fills possessed the liquidity that can so often turn crystalline, brittle. Solo piano had body, a presence correct in scale, in all three dimensions. Attack? Fast, crisp and in complete control.

But the vocals were too close in texture to Cole's, so more revelations were needed. And you can't get further away from Cole or Mo' than the whinings of Neil Young. Don't take that the wrong way – I'm a huge fan, even though he should never be forgiven for shtupping the rest of the Buffalo Springfield when they were inducted into the Rock 'n' Roll Hall of Fame. Regardless of his odd behaviour, his first four LPs are among the finest work he's

ever produced, and last year's vinyl reissues are stellar.

'Cinnamon Girl' – that delightful juxtaposition of Young's castrato non-voice backed by quasi-heavy-metal – taxes most systems, but the Forte S provided every gram of mass without swamping his weedy warblings. 'Down By The River'? Majestic, powerful, as epic as it needs to be. While at times these were almost Spectorian in their grandeur, presenting, yes, a wall of sound, the retrieval of detail and faultless clarity allowed you to zoom in on specific players with ease.

During the course of the listening sessions, a notoriously acerbic rival turntable manufacturer called to visit me. Humility is not an issue that plagues him. He sat in my listening room not just attentively, but was wholly complimentary about the system. This is not an individual who bites his tongue, and so for him to comment so positively is an accolade surpassing anything I might write. ☺

HI-FI NEWS VERDICT

Although I'd have preferred to review this with a familiar arm, I can hear that the Forte S and Evolution work beautifully as a package, for those who'd rather not deal with choosing arms. It should appeal especially to audiophiles who adore classic decks of the 1970s, with cubist plinths and staggering woodwork. It's a doddle to set-up, a joy to use. If your stand can cope with the size, you'll love it.

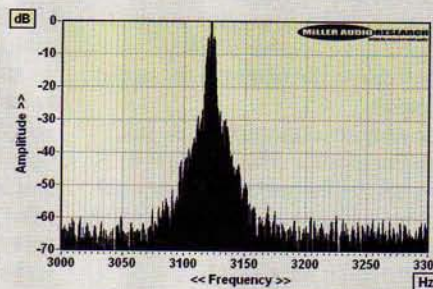
Sound Quality: 85%



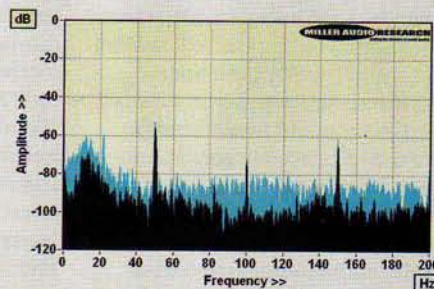
Power consumption is not something that's uppermost in our discussion of a turntable's performance but, on this occasion, a draw of just 4W for two substantial motors manhandling a very substantial alloy platter is worthy of comment. It's illustrative of EAT's decision to trade motor torque for reduced motor noise and reflected in the impressively low –69dB groove noise (re. cartridge output at 5cm/sec). A portion of the platter's 15kg mass is at least partially supported by two neodymium magnets that are secreted beneath, the remaining load borne by a substantial inverted bearing tipped with a ceramic ball. The low –71.4dB through-bearing rumble also demonstrates the efficacy of EAT's heavyweight engineering [see Graph 2, below].

Nevertheless, as observed by Ken during his time with the deck, this low noise performance was occasionally bought at the expense of some motor/belt 'skidding' as the Forte S was brought up to speed. Some manual assistance is certainly recommended as is the need to keep the belts, platter periphery and motor spindles scrupulously clean. Either way, our sample was up to speed within six seconds and offered state-of-the-art figures for wow & flutter [see Graph 1, below] amounting to a DIN B-weighted 0.02%, albeit with a fixed speed error of –0.88%. It's unusual to find a new deck running slow – most run fast – but the decrease in pitch will not be audible.

Readers are invited to view a full QC Suite report for the EAT Forte S/Pro-Ject 12in Evolution turntable/arm package 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). Under speed results in imperceptible loss in pitch



ABOVE: Unweighted bearing rumble from DC-200Hz (black infill) versus silent LP groove (blue infill) re. cartridge output at 1kHz at 5cm/sec

HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.04rpm (–0.88%)
Time to audible stabilisation	6sec
Peak Wow/Flutter	0.02% / 0.03%
Rumble (silent groove, DIN B wtd)	–69.2dB
Rumble (through bearing, DIN B wtd)	–71.4dB
Hum & Noise (unwtd, rel. to 5cm/sec)	–56.3dB
Power Consumption	4W
Dimensions (WHD)	550x440x300mm