Belt-driven turntable/arm/cartridge Made by: MoFi Electronics, Chicago, USA Supplied by: Karma-AV Ltd, York Telephone: 01423 358846 Web: www.mofielectronics.com: www.karma-av.co.uk Price (with arm/cartridge): £1349



MoFi StudioDeck+

Mobile Fidelity, champion of audiophile vinyl, has now wrapped up an EISA Award for its flagship UltraDeck – does the more affordable StudioDeck give much away? Review: Ken Kessler Lab: Paul Miller

t might seem that we played this one in reverse, reviewing Mobile Fidelity's dearer UltraDeck turntable first [HFN Jul '191, before working backward. A buzz in the underground, however, suggested that MoFi's less-costly, entrylevel StudioDeck might be something of a 'sweet spot' candidate, so what could have been an anti-climax is anything but.

That dearer package came in at £2499, while the StudioDeck costs £1199 without cartridge, or £1349 if fitted with the StudioTracker MM cartridge, as here in StudioDeck+ guise. The MM will set you back £199, so that's a discount of £50, or the price of MoFi's heavyweight vibrationdamping record clamp...

As has been observed before, MoFi is reviving a practice that dates back to the early days of music-in-the-home, when record labels also produced playback equipment. EMI, Decca, RCA - they were all at it because it made sense. MoFi's story is equally integrated into the audiophile milieu, because the company's experience extends to the entire experience.

MUSIC DIRECT

For those unaware of it, Mobile Fidelity is part of the empire that includes Music Direct, one of the USA's largest online suppliers of separates. It handles a slew of turntables and cartridges as well as amps and speakers, from brands such as Marantz, Chord, iFi Audio, AudioQuest and others. Hence the ease in which what is ostensibly a record label moved into hardware manufacture. As such, it had to be careful when introducing its own turntables, and so far, MoFi has managed not to aggravate its other record deck suppliers, including market-leaders Pro-Ject.

To judge just how serious it is, MoFi eschewed the mere slapping of its logo on a generic deck or two, and designed its own. Says Vice-President Josh Bizar, 'The

RIGHT: Sharing the same tonearm (non-Cardas wiring), AC synchronous motor and inverted bearing as the UltraDeck, the StudioDeck has a thinner Delrin platter (19mm versus 33mm)

MoFi StudioDeck was the first turntable we designed. The goal was to honour the work of the Mobile Fidelity mastering lab, and make a turntable worthy of our record label'. As with the UltraDeck, Allen Perkins of Immedia fame was the lead engineer on the StudioDeck project. So, too, is Michael Latvis of Harmonic Resolution Systems,

who developed both decks' special feet and the optional MoFi 'superheavyweight' record weight.

While we opted for the basic cartridge, the StudioDeck can be ordered with any of the three MoFi Electronics Trackers, factory-

installed for the end user. Crucially, though, the user is not bound to them because the StudioDeck still has all the same tonearm adjustability as the UltraDeck's arm, so customers can fit cartridges of their choice.

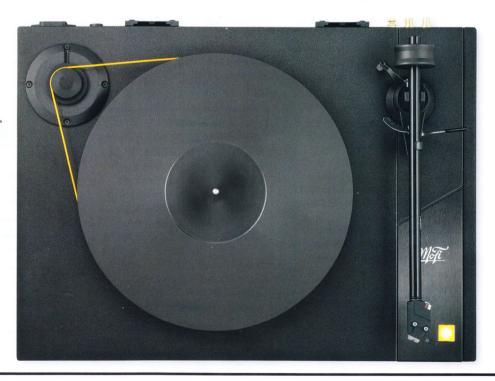
It is not the job of the reviewer to 'protect' a manufacturer by always preferring the more expensive of two products. So a dearer model may offer superior performance, but a less-expensive model may deliver better value for money and these are two different concerns.

A DECK TO IMPRESS

Contrasting the StudioDeck and UltraDeck turntables illustrates this phenomenon with

> vivid results, and the clues are in the terse, 'nutshell' description which describes the two succinctly as: same bearing (different thrust pad), motor and arm (different arm wiring), thinner platter and simpler plinth construction for the

StudioDeck. Immediately that tells costconscious buyers how little of consequence is sacrificed for a substantial saving in monetary terms, especially if the bearing, motor and arm are deemed to be the elements that have the greatest impact on overall performance (if admittedly in the most simplistic terms).



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Looking at the constituent parts in detail, the StudioDeck uses the same ultra-quiet US-made AC-synchronous Hurst Motor, 10in aluminium gimbal-bearing tonearm, Delrin platter material and dedicated anti-vibration HRS feet, which are calibrated here to suit the lighter plinth. The extra £1k for the UltraDeck pays for a thicker platter ('a very expensive part to machine,' says Josh Bizar), while its plinth is more sophisticated thanks to additional layers of constrained-layer damping; a single aluminium damping plate is used to add mass and dissipate vibration on the StudioDeck plinth. The UltraDeck's arm is wired with more expensive Cardas PSC cable, while the StudioDeck gets OF-copper wiring.

Shared though the bearings are, the StudioDeck's has a Teflon thrust plate while a harder sapphire is used in the UltraDeck. Weight drops to 8.6kg against the UltraDeck's 10.5kg but the StudioDeck's plinth looks less fussy thanks to fewer contrasting surfaces. However, the shared gene pool is obvious in style, colour and common footprints of 500x362mm (wd).

Thus, having looked at the StudioDeck vs UltraDeck, point by point, the observer is struck by just what a bargain the former appears to be - whether or not you factor in a further savings by purchasing a MoFi cartridge at the same time.

Though the plinth is lighter, the StudioDeck still feels substantial. I was continually reminded of the first truly minimalist-yet-deliciously-audiophilic turntable of my past, the original Rega Planar 3. As with that classic, there is the admirable mix of impressions, a combination of substance and credibility that banishes the thoughts of compromise which can tarnish the experience of buying something cost-effective.

FAST 'N' FURIOUS

All else is the same, the operational involvement consisting solely of an on/off switch on the plinth's lower right hand corner, and speed change from 33rpm to 45rpm achieved by moving the belt on the pulley. Tonearm set-up was limited to balancing the arm, applying tracking force and hanging the anti-skate weight, as the cartridge was pre-fitted in this StudioDeck+ version. I checked the location with my own protractor and it was spot-on, while an electronic stylus balance helped set the StudioTracker to 2g. From box to music? All in all, it took a dozen minutes.

ABOVE: The StudioDeck+ is offered with MoFi's companion StudioTracker MM cartridge. The plinth has a single alloy-layer-on-MDF in place of the UltraDeck's triple laminated construction

In order to better assess the differences between the StudioDeck and UltraDeck, which is the meat of this review, I used exactly the same recordings. For those of you without access to the earlier review, I am making specific comparisons between them, as this seems the most useful for the potential buyer. And before you ask, no, the StudioDeck doesn't 'blow away' the UltraDeck. But it is to its dearer sibling what Bottas is to Hamilton.

Starting with Silverhead's 1973 release 16 And Savaged [Purple Records TPSA7511], an album that falls under a banner which embraces glam, power pop and hard rock, the desired effect is achieved by a mix of speedy transients, slam and attack. Not, I hasten to add, the grandeur demanded of pompous stadium rock, but certainly a recording that wants to bludgeon the listener.

SHEER WONDER

Now I am not about to attribute these sonic qualities to the actual, physical weight or mass of a record deck, but the UltraDeck had the edge, most noticeably when it comes to the percussion. I wrote before of its militaristic mien, and the substantial 'crunch' that made me wish I owned a pair of late 1960s JBLs. The StudioDeck came close enough to make me try it with the Ortofon 2M Red that I had also used in the UltraDeck.

This confirmed a boast by Bizar that the less-costly unit offered a 'healthy percentage' of the flagship's performance. An imaginary scale might show the percentage improvement by the Ultra to be in single digits. Yes, it came that close.

A simple analogy would be to cite two cartridges from the same family, with increases in price and gains in performance $\mathrel{\circleddash}$

MOFI MODELS

MoFi Vice President Josh Bizar prefers not to spill any beans prematurely, but he did acknowledge that the company has 'a few products in the engineering, design, and development stages now. We have been hard at work for some time on an affordable DAC and we're working on a beautiful, great-sounding integrated amplifier'. While this will mean we are two more steps closer to an all-MoFi system, he is, however, most excited about the third model in the turntable range, what will be 'a significantly more expensive turntable than the UltraDeck that will certainly look a lot cooler'. Bizar also promises 'some top-secret plans' with the next model offering unique features and incremental material improvements. Also alluding to an adventurous new tonearm design, he was reticent about revealing too much because 'pricing has not yet been finalised, as we have not locked down the costs of the new features and design elements. But I guarantee as soon as there is something concrete to discuss, we will let Hi-Fi News readers know all the details'. Watch this space!

TURNTABLE PACKAGE



ABOVE: As with the UltraDeck, there's no external PSU here but a direct AC mains power connection. Tonearm wiring is terminated in RCA outputs and a ground post

being incremental. You know the drill because it is the definition of an upgrade path. The sheer wonder of the StudioDeck vs the UltraDeck is how perfectly its represents the gains without tickling the feet of the Law of Diminishing returns.

In other words, you will hear every extra pound if you opt for the UltraDeck, but you will still be mightily impressed by what the StudioDeck delivers... enough to wonder if you should dip into your bank account for another grand.

LITMUS TEST

Raucous rock-ready record decks are plentiful and at tempting prices. Finesse costs more. As with its big sister, the StudioDeck was tested with the most refined recording I could muster, Dusty Springfield's 'The Look Of Love' on a 12in single from Classic Records [CR-5005-12]. This really is 'all about the voice' and Dusty's breathy delivery - arguably the sexiest since Julie London circa 1958. The StudioDeck demonstrated remarkable low-level detail, and came so close to the UltraDeck for delivering scale and 'air' that I was struck by the thought that the cartridge variances were greater than that of the turntables, though the UltraDeck sounded warmer.

Of late, I have been relying on The Band's eponymous second LP [MFSL 1-419], and cannot wait to get my hands on the just-released 50th anniversary edition. That possibly superior release aside, MoFi's version is as good as it gets, and it was somehow appropriate that I try the StudioDeck with at least one MoFi title. As before, Levon Helm's expressive drumming - always a litmus test for sonic precision - and Garth Hudson's majestic Lowrey organ proved particularly illustrative.

Again, the StudioDeck had a slightly 'lighter' sound, though I cannot say it lacked substance. It was more a case of quality rather than quantity, and one can tell that the same ears 'voiced' both. If I had to reduce the sibling rivalry to a high concept analogy, the differences are on a par with buying 'the next amp up' in a range of integrated amps: same sonic signature, but slightly more punch. The difference here, though, is the massive savings.

One final observation: even more so than the UltraDeck, the StudioDeck justifies the addition of one particular accessory, which is a record weight, or clamp. MoFi's own 'superheavyweight' eliminated a trace of 'woof' in the mid-bass, and had the unanticipated benefit of lowering surface noise. I also played around with felt, rubber and cork mats, and the StudioDeck proved transparent and coherent enough to reveal the differences with repeatable results. This is my way of saying that the StudioDeck actually encourages tweaking, the UltraDeck less so because it has the edge in ultimate refinement. \circlearrowleft

HI FI NEWS VERDICT

MoFi has done its homework and produced a gem of a basic deck. I was not prepared for such an instant dose of sheer delight. You all know the sensation when caught unawares by a product that defies its price category with magical sounds, and the StudioDeck is one of them. For nervous newcomers in sore need of a user-friendly, painless introduction to proper vinyl playback, this is a no-brainer.

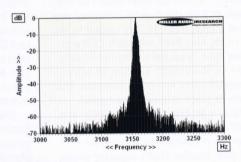
Sound Quality: 88%

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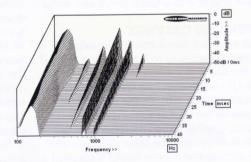
MOFI STUDIODECK+

By combining the same 300rpm AC synchronous motor and hardened steel inverted bearing (albeit with a Teflon rather than sapphire thrust pad) with a lighter Delrin platter (1.8kg vs. 3.1kg), the performance of the StudioDeck inevitably differs from that of the UltraDeck [HFN Jul '19]. Start-up time is not substantially reduced as both decks exhibit some belt slippage for the first half-revolution, but the absolute speed error is somewhat higher at +0.33% in the StudioDeck. This is reflected in the right-hand shift of the main signal peak [Graph 1] but is unlikely to cause an audible pitch change. Moreover, peak wow is reduced in the StudioDeck from 0.07% to 0.05% thanks to a suppression of the deck's ±5Hz sidebands. Higher-rate flutter is unchanged at 0.04% and essentially uncorrelated (noise-like). Through-bearing rumble is also unchanged at -67.7dB (DIN-B wtd, re. 5cm/sec) but through-groove rumble was 3-4dB higher in the StudioDeck at -67.2dB, possibly as the lighter platter offers slightly less overall damping.

MoFi's 10in alloy tonearm is a true heavyweight with an effective mass a little over 30g, so it's fortunate the supplied StudioTracker MM weighs only 6.4g. This high mass arm suits lower compliance pick-ups but also contributes to some bold resonances seen on the CSD waterfall plot [Graph 2, below] the latter unaffected by the change in internal wiring. The main bending mode occurs at 145Hz and the secondary modes at 440Hz, 710Hz and 980Hz. Some additional damping would benefit the arm's performance although its proven gimbal/ ballrace bearings are of superb quality at the price - absolutely free of any play while offering a very low <10mg friction. PM



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



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	33.44rpm (+0.33%)
Time to audible stabilisation	4sec
Peak Wow/Flutter	0.05% / 0.04%
Rumble (silent groove, DIN B wtd)	-67.2dB
Rumble (through bearing, DIN B wtd)	-67.7dB
Hum & Noise (unwtd, rel. to 5cm/sec)	-58.0dB
Power Consumption	5W (<1W idle)
Dimensions (WHD) / Weight	500x137x362mm / 8.7kg