

KEN MICALLEF

MoFi Electronics MasterDeck

TURNTABLE

et two mouthy jazz drummers in a room and watch the sparks fly. Talented turntable designer Allen Perkins,1 the brain behind Spiral Groove.² Immedia's RPM turntables.3 and various SOTA models, is first and foremost a jazz drummer. Yours truly, after pounding soul-funk beats up and down the East Coast in a silk jumpsuit during the 1980s, played and studied jazz drums for years.

Allen, who are some of the greatest jazz drummers?

"Buddy Rich, because he showed all of us what excep-

tional technique looks like," Perkins responded, over email. "Joe Morello was exceptional like Vinnie Colaiuta is today, but Buddy was the one with the showmanship to dazzle the public."

What about Tony Williams, Elvin Jones, and Philly Joe Jones? They set the course everyone followed.

"Elvin Jones, for sure," Allen agreed, "he was the most original. You can trace Tony Williams and other great influences. But where did Elvin's approach come from? He seems self-made."

I agree regarding Vinnie Colaiuta, he may be the most gifted drummer since Tony Williams. But Jack DeJohnette is the greatest living, pure jazz drummer. His work is documented over the past



Perkins's MasterDeck is a forensic tool, a musical CSI, dissecting a record's every nuance. 50 years with Miles Davis, Joe Henderson, Bill Evans, Keith Jarrett, and many more.

"Peter Erskine," Allen countered, "because he embodies so many stylistic influences and can contribute to any musical situation: Weather Report, small combos, Joni Mitchell, and literally hundreds of movie soundtracks. He is a unique blend of historical knowledge, classical training, and impecable taste."

Enter the MasterDeck

Perhaps the most intriguing aspect of the MoFi Electronics MasterDeck turntable (\$5995), as the brainchild of Perkins in his role as MoFi's Chief Analog Designer, lies in the question of how his background as a jazz drummer has shaped his approach to turn-

1 See stereophile.com/interviews/allen_perkins_from_bicycles_to_belt_drives. 2 See stereophile.com/turntables/spiral_groove_sg2_turntable/index.html. 3 See stereophile.com/turntables/997immedia/index.html.

SPECIFICATIONS

Description Three-speed, belt-drive turntable with 10" hybrid unipivot/gimbal carbon-fiber tonearm. Turntable: Constrained layer MDF core with aluminum top plate within a solid wood frame. Speeds: 33 ¹/₃, 45, and 78rpm with speed adjustment and four-digit LED readout. Motor: three-phase brushless AC. Bearing: bronze sleeve, steel shaft with precision steel ball and

Teflon thrust pad. Platter: 1.75" thick, 14.35lb aluminum platter with integrated Delrin surface, round belt formed from a proprietary material. Harmonic Resolution Systems (HRS) isolation feet. Power consumption: <5W. Power supply requirements: 120V 60Hz, 220–230V 50Hz, 100V 50Hz.

Description (tonearm) Type: 10" unipivot/gimbal hybrid with detachable headshell.

Armtube: straight damped carbon-fiber. Overhang: 0.71" (18mm). Total length: 12.5" (317.5mm). Effective length: Stylus-to-pivot: 10" (254mm). Pivot-to-spindle distance: 9.29" (236mm). Pivot-to-stylus distance 10" (254mm). Offset angle: 22.8°. Cartridge weight range: 5gm–14gm. Internal wiring: Cardas.

Dimensions 20" (508mm)

W x 14" D (355mm) x 6.25" (158.75mm) H. Weight: 37.4lb

(16.96kg).
Finish Walnut or Black Ash solid wood frame.
Serial number of unit reviewed 001-0039.
Price \$5995. Made in Michigan, USA. Warranty: 3 years.
Manufacturer
MoFi Electronics,
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Ann Arbor, MI 48108-3322.
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table design. How does the rhythmic sensibility of a percussionist translate into the meticulous engineering of a turntable?

"It's a little complicated," Perkins wrote over email. "Being a drummer, I am sensitive to timing in music, so it makes me sensitive to problems. However, it does not provide any direction for solutions. It could be seen as an annoying awareness as a listener, like perfect pitch. In my case, it is an advantage because I love to solve problems, in general, so I persevere and have a built-in sense to assess what I've done."

The MoFi MasterDeck⁴ is testament to Perkins's design philosophy as expressed in his Spiral Groove SG1 and SG2, Immedia RPM, and SOTA turntables, even sharing a familial resemblance to the Spiral Groove turntables in its tapered platter design. However, the similarities end there. Crafted with components sourced from the Midwest and Asia, and assembled in MoFi's Ann Arbor facility, the MasterDeck strikes a unique look, sleek but substantial. Wider than it is deep, with an exposed gold rubber belt driving its nearly 15lb platter like a tiny sash surrounding a *zaftig* harem girl's waist, the MasterDeck is heavier than it looks. Its wide, cruiser-like profile, composed of a constrained-layer plinth, is topped by a two-tiered aluminum plate, evoking the layered complexity of an Asian rice paddy. The 10" tonearm, a Perkins original, contrasts the turntable's solid form, which appears to use a mass-damping approach, with its slender elegance.

Perkins's tonearm consists of a carbon-fiber armtube made with an internal taper to aid rigidity and damping. "The rest of the materials are common to all arms," wrote Perkins, "including stainless steel (cueing lever), aluminum (removable headshell), plastic (VTA wheel) and in this arm, synthetic sapphire and ruby for bearings. The counterweight and its thumb screw are steel."

Combining Perkins's years of turntable and tonearm design

(as in his Centroid models⁵), the MasterDeck tonearm offers an expected, high degree of adjustability. Azimuth, vertical tracking angle (VTA), overhang, vertical tracking force (VTF), and antiskate are all finely tunable parameters. The arm's hardwired cables, utilizing Cardas Audio wire, ensure uniform signal transfer. Perkins's innovative design addresses potential resonances within the plinth and cartridge, while seamlessly blending unipivot and gimbal principles for optimal performance.

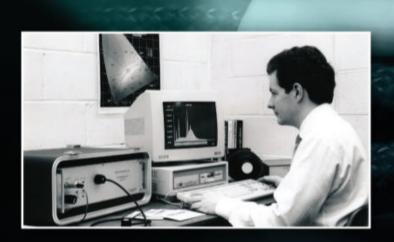
"For the lateral motion of the arm, we have three points of contact," Perkins explains in a video on the MoFi website. "There's a unipivot point supporting it vertically and two ruby balls that support it as it rotates around its axis. Those three points offer the fast energy transfer and the stability of the gimbal but still give the performance benefits of a unipivot. For the yoke, the part that works in the vertical motion of the arm, that is a more standard gimbal design except that we were able to locate very high-quality bearings that are rated for high performance in a function that requires tens of thousands of RPM speed which will never be seen with a tonearm. They are made to perform exquisitely beyond what a tonearm requires. The arm has unipivot advantages, [and] an advanced gimbal system for its vertical motion."

The tonearm features a removable headshell design that eschews traditional wiring contact points, thereby eliminating a potential source of signal degradation. Instead, direct connections are made between the tonearm leads and the cartridge pins. At the opposite end, Perkins's patented Spiral Groove counterweight system provides a level of adjustability and precision that is both elegant and effective.

As the counterweight travels across the pivot point, some of the mass is moved forward of the pivot point for lightweight cartridges; all of the mass is moved behind the pivot point for heavyweight



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carts. Keeping the mass close to the pivot creates low inertia for the cartridge while allowing the arm to handle a wide range of cartridge weights.

The MasterDeck's 1.75"-thick platter is a hybrid composition of aluminum and Delrin, the latter said to reduce resonances, "providing a remarkably stable and inert base for vinyl playback," stated a press release.

"Delrin has a close vibrational impedance to vinyl so it damps the record well," Perkins noted in the MoFi video, "and creates a good platform to have a quiet, well-damped record for the cartridge to perform over. It's a thick Delrin surface on top of an aluminum platter. Aluminum brings a different level of stability. The combination of aluminum and Delrin creates high inertia, a well-damped platter, and gives a good match to vinyl to aid in hearing the tonal balance as [instilled] on the master tapes."

"The platters of Spiral Groove 'tables were the same construction for the same reasons, but at about three and six times the

price," Perkins explained in an email. "So, the MasterDeck platter is not unique in regards to originality, but to being offered at this price."

The MasterDeck features Perkins's Encapsulated Spiral Groove Inverted Bearing, engineered to minimize friction and reduce wear, reported to result in smoother turntable rotation. The Encapsulated Spiral Groove bearing allows the belt to drive at the platter's midpoint while retaining its balance at points above and below the point of rotation, further aiding stability.

"The principles of the design have been



in all my 'tables since 1991," Perkins wrote over email. "The way they are implemented has varied in RPM, SG, and now MoFi turntables to address price requirements. The MasterDeck materials are stainless steel, bronze, precision steel ball and Teflon

4 See mofielectronics.com/products/mofi-electronics-masterdeck-turntable.

5 See stereophile.com/tonearms/spiral_groove_centroid_tonearm/index.html.

6 See tinyurl.com/2wumzhk2.





from aluminum. All aluminum body parts are powder coated.

Acknowledging both the vinyl and, apparently, the shellac resurgence, the MasterDeck offers a multiplicity of speeds: $33 \frac{1}{3}$, 45, and 78rpm. A discreet dial, stationed in the turntable's southwest corner, allows for speed selection. Adjacent to this dial, a trim dial enables fine-tuning for absolute accuracy of the platter's pacing. A four-digit digital readout provides granular control over speed

Stationed in an isolated mount to quiet signal-muddying resonances, the MasterDeck's three-phase sinusoidal ("one with a smooth, repetitive oscillation"-Wikipedia) synchronous motor is driven by a new MoFi system. The motor system tests the speed at start-up and locks it in as it arrives at the desired speed.

'There are sensors under the platter that tell the computer the platter speed," Perkins wrote. "When it hits the set speed the sensing system cuts out and the drive continues to send the motor the frequency to maintain that speed. The speed is not readjusted during record playback. The motor is controlled by a computer with its own algorithms. This system is proprietary and developed by MoFi."

The MasterDeck arrived sans dust cover on top but is supported by new Harmonic Resolution Systems isolation feet below. Providing up to 5.5° of extension, the feet should achieve a level playing surface, even if your building, like mine, and its off-kilter floors, are over 100 years old.

One thing I didn't care for on the MasterDeck: a spindly finger lift that seemed designed to lessen any detrimental impact on the tonearm, while offering very little real estate with which to wrap one's finger under. Oddly, I prefer my index finger to a cueing lever, that's just me.

Setup

Perkins's unique counterweight system enabled one of the easiest VTF adjustments I've ever encountered. It worked as advertised, the knurled counterweight dial easily moving the counterweight in either direction to lock in the correct tracking force. The tonearm came prefitted with a MoFi UltraGold MC cartridge from the factory. Mounting a second cart, the Luxman LMC-5 (\$2695), using the provided headshell was easy. VTA adjustment was also smooth and involved rotating the plastic dial at the tonearm's base. The adjustable feet did their job, but shims were required to entirely level the MasterDeck. Azimuth set at the factory was A-OK. I set antiskate

using Analogue Productions' Ultimate Analogue Test LP (AAPT 1), which offers multiple setup parameters including an antiskate track and a silent groove, neither of which require additional tools.

I found adjusting the height of the cueing lever to be demanding, so much so that I brought in The Spin Doctor, Michael Trei, to stop my head from exploding. The screw for the cueing lever is set inside of the base for the lever. I found it impossible to make adequate contact from the supplied Allen wrench to the screw.

Listening

If you watch YouTube turntable videos, read turntable manufacturers' websites, or dig deep into white papers on noise suppression, two words dominate: resonance control.

Allen Perkins has gone a long way to address resonance goblins inside and out of the MoFi MasterDeck, from smartly chosen materials to unique mechanical approaches. Would a low noisefloor be obvious when spinning wax on the MasterDeck? Initially, I wasn't so sure. Shouldn't a major audio improvement resemble trumpets blasting? That new car smell? The proverbial "last call for alcohol" at your local? I pulled out an assortment of test LPs to gauge performance, using the Luxman cartridge.

Lately, I've been enchanted with Chicago-based record label International Anthem. Claiming a creative lineage with the Chicago underground (Jeff Parker, Chad Taylor, Nicole Mitchell, etc.) as well as the Association for the Advancement of Creative Musicians (AACM), IA's albums run the gamut from Tortoise-inspired postrock improvisations to world beat-reminiscent space rock. One of their artists, Anna Butterss, is a bassist/composer who appears on SML's Small Medium Large (IARC0085) as well as her own Mighty Vertebrate (IARC 0086).

The MoFi MasterDeck did an excellent job sorting out these albums' curious blend of intense improvisation and what sounds like electronically looped melodies and rhythms. From the highestpitched percussion and synth lines to the lowest electric bass notes, the MasterDeck presented a cleanly delineated, well-controlled assemblage of sounds, nothing given narrow focus but rather a full-bore hearing, nothing popping out of the mix as extreme, but as finely hewn images given equal weight, top to bottom.

The MasterDeck consistently played with determined certainty, resolving everything in a recording in an altogether fresh way, to my ears. I've heard 'tables accentuate one characteristic in a mix or another, as if making a statement of personal tastes, you might say. The MasterDeck was utterly neutral in that regard, and again, very well controlled, wresting the last iota of information from the grooves like a trawler scraping the sea floor, nothing left to the imagination.

It was as naked to cartridges as it was to surface noise. If a record was dusty or dirty, the MasterDeck laid it bare, indifferent to any favoritism, be it from recording or mixing choices, or the record's condition.

I recently stumbled upon a copy of Bob Dorough's timeless *Devil May Care* (at Red Hook, Brooklyn's Music Shoppe), a gem from 1956 (Bethlehem BCP-11). Dorough, a singer unlike any other, employs trippy cadences, a stark vocal tone, and elastic phrasing to deliver a musical injection of pure fun and swinging style. The MoFi knocked out this mono disc as taut, present, and driving, with Bill Takus's crazy bass walking especially full-bodied, taut, and energy-mad.

The MoFi imprint performed a similar archaeological feat on The Great Jazz Trio's "A Night in Tunisia" (from *Direct from L.A.*, East Wind EW-100005), unearthing a performance I'd never encountered. Each instrument was exhumed, given full weight and a spotlight. While most 'tables capitulate to Tony Williams's thunderous solo, as if overwhelmed, the MoFi met Tony's assault with a controlled yet robust refinement. It revealed not only Williams's brute force but also his surprising grace.

A song to make Alex Halberstadt guffaw, but one that warms the cockles of my heart, Eydie Gormé's "Don't Go To Strangers" (from Don't Go To Strangers, Columbia CS 9276) is a 1966 relic from the hallowed halls of CBS 30th Street Studio. Gormé, a vocal chameleon, is swathed in an orchestra of shimmering strings, tippling piano, and a plate echo so vast it could house a small (Tudor?) city. The MasterDeck elevated Gormé to goddess proportions, her every sigh, breath, and bittersweet note (and dust crackles) magnified into a colossal, cathedral-sized sound. A truly magnificent spectacle.

MoFi meets MoFi

Replacing the Luxman LMC-5 with MoFi's UltraGold MC cart (\$1495) was a sonic gamble that paid off. The UltraGold, a leaner, meaner beast, electrified the MasterDeck. It traded the LMC-5's

ASSOCIATED EQUIPMENT

Analog sources Thorens TD124 turntable with Korf TA-SF9R tonearm. Denon DL-103o, Hana Umami Blue, Luxman LMC-5, MoFi Electronics UltraGold MC phono cartridges.

Preamplifiers Rogue Audio RP-7 (line); Tavish Audio Design Adagio, Manley Chinook (phono).

Integrated amplifier Riviera Labs Levante.

Power amplifier Roque Audio Stereo 100

Power amplifier Rogue Audio Stereo 100. **Loudspeakers** Volti Audio Razz, Voxativ Ampeggio.

Cables Interconnects: Triode Wire Labs Spirit II, Argent Pur (all RCA). Speaker: Auditorium 23, Iconoclast. AC: AudioQuest NRG Z, Triode Wire Labs Obsession NCF.

Accessories Pro-Ject VC-S2 ALU, Humminguru ultrasonic record cleaning machines. AOCISKA soft bristle brush. Dupiulk record cleaning brush. AudioQuest PQ-707, IsoTek EVO3 Aquarius power conditioners. AV RoomService Ltd. EVP vibration protectors. Salamander five-tier Archetype rack (2). Pangea audio rack. IKEA Aptitlig bamboo chopping boards (under turntable, preamp, power, and integrated amps). Mahogany blocks (three to a stack), under IKEA boards.—Ken Micallef

lushness for speed and dynamism, breathing fresh life into all my old records. From *Stable Mates* (Savoy 1211J) to Jack DeJohnette's *Special Edition* (ECM 1152), the UltraGold's deep dive into sonic detail and locomotive energy made for thrills galore. It brought out a swinging, grooving quality from the MasterDeck that was incredibly engaging.

I was so taken with the UltraGold's keening, charged, dramatic quality, I pulled out a handful of Jack DeJohnette records to relish the flow. "Sunrise," from *Terje Rypdal/Miroslav Vitous/Jack De-Johnette* (ECM 1-1125), arranges DeJohnette's drums across a wide stereo spread, snare and toms in left and right channels, cymbals in both, bass drum dead center. The UltraGold created an incredible sense of energy and drive, Jack's drumming a marvel. The Master-Deck continued this spectacle on DeJohnette's *Audio Visualscapes* (Impulse! MCA-8029), *Irresistible Forces* (Impulse! MCA-5992), Gateway (ECM 1061), Rypdal's *To Be Continued* (ECM 1-1192), and DeJohnette's *New Directions* (ECM 1-1128). Watch out for a feature interview with DeJohnette in an upcoming issue.

Conclusion

So, to the earlier question, did I hear trumpets blare and the wow factor skyrocket with the MasterDeck? Yes, I did. But it wasn't the same old song and dance as with other decks. Perkins's Master-

Deck is a forensic tool, a musical CSI, dissecting a record's every nuance, from the hidden depths of its grooves to surface muck and mire. It did so with intellectual indifference, a sense of precision that's more akin to a studio monitor than a domestic turntable. It laid bare the mix, the soundstage, the tone, the dynamics, the frequency range, and lifeforce of the music, all with an unflinching eye. If there's a better turntable for nearly \$6k, I haven't heard it. An exceptional music playing machine.