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MoFi Electronics UltraDeck+ Turntable and StudioPhono Phonostage

BY JULIE MULLINS
PHOTOGRAPHY BY DENNIS BURNETT



When it comes to audiophilia, great sound starts with the source. And of all the audiophile gear out there, it's the turntable that stands—or spins—alone as an enduring symbol for high fidelity. From the earliest turn-of-the-20th-century Victrolas and vintage portable Crosleys, to the Linn Sondeks of the hobby's heydey, DJs' beloved Technics SL-1200s, and today's Acoustic Signature Invictus behemoth, in its basic design fundamentals the turntable represents high-end audio culture par excellence. I went to see a Cincinnati Symphony Orchestra performance with my audiophile dad a few weeks ago and asked for a closer look at his cufflinks. They were little chrome turntables with tiny tonearms.

# MOFI ELECTRONICS ULTRADECK+ TURNTABLE AND STUDIOPHONO PHONOSTAGE





y earliest musical memories mostly came from my father's hi-fi system. Even as a wide-eyed innocent, I knew that those majestically glowing tubes on the McIntosh had plenty to do with the gorgeous and thrilling sounds coming through the speakers, and this intrigued me. Spinning records was where the magic began.

On my own kiddie record player, which might have been a Fischer-Price something or other, I remember listening to Prokofiev's *Peter and the Wolf*, along with some Disney soundtracks. When I was ten years old, my father put together a little system of my own for Christmas: a basic Audio-Technica table, a pair of little Infinity bookshelf speakers, and an Advent 300 receiver. In time, my dad taught me how to power up his hi-fi system and let me play back records on it. I handled each step, each flip of a preamp switch, each turn of an amplifier knob, with reverence. But most of all, I took care placing the needle on the record—it was that final moment of precise handling that always made me a little nervous. I'd steady my hand and hold my breath as the tonearm with mounted cartridge made its slow smooth descent, the stylus gently dropping into the groove just before silence gave way to glorious sound.

As any analog lover knows, vinyl records, both vintage and new, are back in high demand today. And with its nearly forty years of history in the record-mastering-and-pressing biz, Mobile Fidelity is certainly a star in the record business. What is new is the company's decision to produce its own turntables to play those records back on. Since there is no shortage of well-priced offerings from the likes of Rega, Audio-Technica, Pro-Ject, etc., why make and market another one?

It turns out the idea was the brainchild of Music Direct—the parent company that owns Mobile Fidelity and a number of other hi-fi brands—and its Vice President Josh Bizar, for whom developing a turntable had been a longtime goal, as well as a logical extension of the vinyl-focused MoFi brand. (See sidebar interview with Josh.) Since its founding in 1977 (by audiophiles), Mobile Fidelity has been committed to high-fidelity recordings and to improving upon industry standards by pioneering new technologies. As an established and trusted brand, it has a lot to live up to.

Its website states, "Mobile Fidelity believes that mastering systems should be neutral and transparent. The essential idea is to unveil all the detailed musical information on the original recording without adding deterioration, coloration, or other sonic artifacts." What better way to achieve this—and offer more to one's customers—than to develop an analog front end that drives home this same approach?

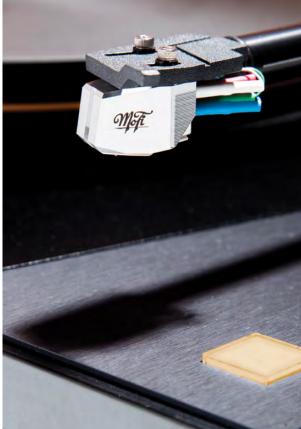
And so a new "hardware" division of the company was born:

MoFi Electronics. It was a bold move not only to venture into selling hardware but also to build a manufacturing facility to produce it in the U.S. Since a MoFi-branded turntable needed to be more than just another pretty plinth and platter, Josh Bizar and his team brought in some heavy hitters: John Schaffer, former owner of Wadia and current President of MoFi Electronics, and Allen Perkins, the illustrious turntable and tonearm designer behind the Spiral Groove brand (his \$36,000 SG 1.2 turntable, reviewed in Issue 276, was named a TAS Product of the Year in 2017). Like so many inaugural projects this one was a long time coming—it has been nearly two years since the first models were announced—but it was worth the wait.

The rubber meets the road for MoFi Electronics less than 50 miles from Detroit in Ann Arbor, Michigan, where Mobile Fidelity's new UltraDeck and StudioDeck turntables are made. Why there? In part because this is where Wadia's production facilities were located, and where John Schaffer still lives and works, surrounded by his own network of people. John likes to be hands-on with the assembly operations, so it made sense to establish the new factory where he was located.

Allen Perkins came on board as an expert collaborator for the project early on, and the timing was really good for him. "I was coming to a point where I wanted to get low-







## THOSE MUSIC LOVERS WHO MIGHT BE NERVOUS ABOUT TURNTABLE AND CARTRIDGE SETUP, FEAR NOT. MOFI HAS YOU COVERED.

er-priced products out there, but I didn't have any that fit my company [Spiral Groove]," he said. "So this was a great opportunity for me to say that my design principles can work at all price points." (See sidebar interview for more.)

There are two tiers of turntables and phonostages (plus three cartridges) currently available through MoFi Electronics; each product bears either the "Ultra" or "Studio" prefix in its name: the Ultra-Deck and the StudioDeck tables (\$1799 and \$1199, respectively), and the UltraPhono and StudioPhono phonostages (\$499 and \$249). There's also a "+" upgrade option for each turntable-an additional \$200 for UltraDeck+ or \$150 for StudioDeck+that includes an UltraTracker or StudioTracker mm cartridge preinstalled at the factory. An optional 13-ounce MoFi Super Heavyweight record weight (\$199) completes the lineup. Under review here is the UltraDeck+ (\$1999) and StudioPhono (\$249) combination. Though this review emphasizes the UltraDeck table, a few words on the phonostages are in order: Adjustable loading and selectable gain are offered for mm and mc cartridges. Both phonostages come with an external power supply, so their rectangular form factor stays clean and compact; only a small yellow light and two small square buttons for subsonic filter and mono options —very pro-audio in look—are on the front beneath a tasteful logo up top. (The UltraPhono model also contains a Class A headphone amp and a dial for a 31-step volume control, plus an additional 6dB better signal-to-noise ratio.)

The two MoFi turntable models have some key attributes in common: Both are belt-driven, feature isolated AC synchronous motors and constrained-layer-damped chassis (the UltraDeck has three aluminum plates bonded to its MDF plinth, the StudioDeck has just one), and offer 33 1/3 and 45rpm speed options (changed manually by moving the belt's position on the Delrin pulley). Although both come with Delrin platters, the UltraDeck's is 1.3" thick and weighs almost twice as much as the StudioDeck's (6.8 lbs. versus 3.8 lbs. and <sup>3</sup>/<sub>4</sub>" thick). Allen explained that Delrin is materially close to vinyl, so it's a good mechanical impedance match. He also chose it because it tends to be quiet, and it machines very easily, which helps keep costs down while offering solid performance as a single-material platter. The UltraDeck's tonearm contains upgraded Cardas Audio wiring from the headshell through the gold-plated RCA connectors. The 10" aluminum arms on both models use high-quality ball bearings in a gimbaled design for lower friction and quiet operation.

Those music lovers who might be nervous about turntable and cartridge setup, fear not. MoFi has you covered. The turntables come with simple instructions for assembly, which really only involves attaching the platter, belt, tonearm counterweight, and anti-skate weight. My UltraDeck+ review sample arrived with the Japanese-made UltraTracker cartridge pre-installed



#### AESTHETICALLY THE ULTRADECK IS NOT A FLASHY DESIGN, NOR WAS IT MEANT TO BE.

#### SPECS & PRICING

UltraDeck+ Turntable
Type: Belt-driven
Motor: 300 RPM AC
synchronous

**Dimensions:** 19.69" x 6"

x 14.25"
Weight: 23.1 lbs.
Price: UltraDeck \$1799;
UltraDeck+ (includes
UltraTracker cartridge)
\$1999

Tonearm (included)
Type: Straight aluminum, gimbaled bearing
Length: 10"

#### MOFI ELECTRONICS

715 W. Ellsworth Rd. Ann Arbor, MI 48108 (734) 904-3191 mofielectronics.com StudioPhono Phonostage

Type: Solid-state with external power supply Gain: Selectable for mm or mc 40dB-66dB Cartridge loading: Adjustable 75 ohms-47k ohms

**Load impedance:** mm, 47k ohms; mc, 75

ohms-47k ohms

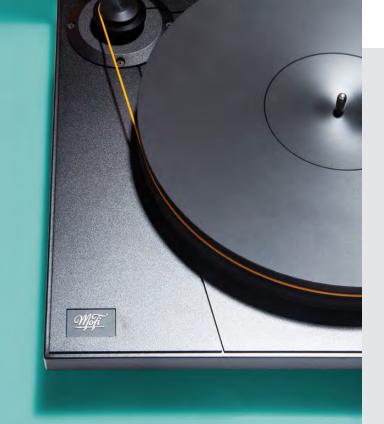
Dimensions: 3 7/8" x 1

1/4" x 7 1/8"
Weight: 1 lb. 2 oz.
Price: \$249

at the factory; with this "+" option MoFi wanted to make life easier for the end user (and eliminate set-up anxiety as a potential barrier to upgrading to a better turntable). A downloadable user guide provides step-by-step instructions and clear illustrations for assembly. Josh Bizar and Jonathan Derda (of MoFi Distribution) were on-hand for my initial setup, but the whole process only took a matter of minutes.

As befits any well-made 'table, the MoFi decks allow adjustments to tracking force, VTA, azimuth, and anti-skate. This should please tweakier audiophiles (although I adjusted just the first two). In addition to the parts mentioned above, the turntable also conveniently comes with a couple of hex wrenches, a stylus brush, RCA interconnects, and a detachable dustcover in a storm-cloud grey tint. One item you might want on-hand is a bubble level (or an app for that). (Some other 'tables in this category have levels embedded in the plinth.) The feet, which were conceived and designed by Mike Latvis of high-end equipment-rack-and-accessories-maker HRS (Harmonic Resolution Systems), are easily adjustable. Another nice feature: The MoFi turntables are equipped with an IEC connector so you can use the included power cord or one of your own choice. All told, even an analog novice should have what he or she needs to get up and running...or spinning.

Aesthetically the UltraDeck is not a flashy design, nor was it meant to be. It strikes the perfect balance between being no-nonsense and straightforward yet stylish, with thoughtful details that reflect the MoFi brand's purpose and ideals. Conceived in close collaboration with Allen Perkins on the technical and materials side, and with MoFi designer Jim Baker on the industrial side, these customized tables embody what Mobile Fidelity Sound Lab is known for: faithfully reproduced music for listeners at home. A distinctive studio-inspired detail is a small, square, yellow-lit power button—a nod to the look and feel of the control buttons on a tape deck, like the souped-up Studer in Mobile Fidelity's Sebastapol, California, mastering facility. A similar yellow light and



## QUESTIONS FOR JOSH BIZAR, VICE PRESIDENT OF MUSIC DIRECT

#### Where and how did this turntable project all begin?

When I came to work for Jim Davis and Music Direct in 1999, Mobile Fidelity Sound Lab (MFSL) had just been shuttered, and we were closing out the remaining stock we had purchased. Jim believed very strongly in the legacy of the brand and worked very hard to acquire the company and rebuild the label. Every day, I was speaking to MFSL customers and helping them fill in the holes in their collections with the remaining stock. So many of them were asking questions about what turntables, cartridges, and other gear I recommended to best reproduce their music. That was when both Jim and I first decided to provide these loyal music lovers and collectors with a Mobile Fidelity-branded hardware solution. Having Mobile Fidelity fans playing back their recordings on Mobile Fidelity equipment seemed like a logical progression.

It took us an additional decade to grow to a size where we had the time and resources to really develop these ideas into a viable business. And during those years at Music Direct, I was fortunate to work with some of the industry's best hi-fi designers and engineers. It was so exciting to get such positive responses from everyone with whom I discussed the opportunity.

#### What were the initial design goals? How did these evolve over time?

Our first goal was to build products that would be true to the brand. We knew we wanted to begin with the analog front end because of the great vinyl our engineers keep putting out into the marketplace. I really wanted these products to offer tremendous value at real-world prices. This project was born out of a desire to satisfy music lovers and fans of the label. The next step involved discussing materials, design sensibility, and how and where to get the products built. It became a painstaking process of listening, testing, and more listening to make sure the quality was where it needed to be.

## How did you approach Allen Perkins? What made you want to work with him in particular?

Allen Perkins was an integral part of the analog designs. When I first came into this industry, Allen was so helpful, teaching me things I never understood about turntables and cartridges. He became a fast friend, and was the perfect designer to help us with 'tables and cartridges. We also work closely with Tim de Paravicini of E.A.R. He has designed all the electronics in Mobile Fidelity Sound Lab's analog cutting system. He's also responsible for most of the advances that have been made in our mastering studio in Sebastopol, California. It made perfect sense to involve him in the electronics designs.

One of the greatest aspects of the process is involving these incredible audio engineers and putting them front and center. We are so proud to have them on board, so why would we want to keep them hidden? Even something as simple looking as the feet on our new turntables were an extremely complex project undertaken by Mike Latvis of HRS. The feet have a dramatic impact on the sound of the 'table by way of their brilliant vibration-control engineering. I look forward to sharing more about our talented partners on upcoming projects we have in the works.

#### Why build it in the U.S.? Why Ann Arbor?

We knew from the beginning that is was really important to build these products in the U.S. Mobile Fidelity is the most prestigious American audiophile record label, and we wanted to continue that legacy. I had also built a tremendous friendship with former Wadia owner, John Schaffer, over the years. When the opportunity arose to have him run the electronics company, everything started to fall into place. What John has accomplished in the factory and assembly facility in Ann Arbor, where he ran Wadia and still lives, is truly amazing.

### What were your first audio and/or music memories? What was your first turntable and system?

I grew up around music and spent much of my early years listening to records with my extended family. I had a cool little console with a turntable and speakers that were covered in denim in my bedroom. I think it was from Sears. I wish I still had it. But my first memory of really having a transformative listening experience was at 13 years old when my uncle Rickey brought home the Mobile Fidelity Sound Lab Beatles box set. I sat on the floor of his living room, right in the sweet spot, thinking that John, Paul, George, and Ringo were playing just for me. It blows my mind that I now get to work with the team who put that set together—and be a part of all the great releases currently produced by Mobile Fidelity Sound Lab.

# MOFI ELECTRONICS ULTRADECK+ TURNTABLE AND STUDIOPHONO PHONOSTAGE

square pushbuttons are also found on the MoFi phonostages. This (literal) touchpoint carries over the brand's philosophy both visually and ergonomically.

Right from the start I was struck by the sense of presence and immediacy in the MoFi's playback. Indeed Allen's applied principles and prioritization of speed stability, thanks in part to the AC synchronous motor, delivered the much-sought-after image depth and breadth—substance, if you will. After I let the motor run for hours over a few days of break-in, the sound got better and better. Image definition, detail, and stability improved, along with ever-increasing amounts of smoothness and ease. Overall musicality was another positive constant. I was astonished at how quiet backgrounds were, especially on good recordings. Surely the little StudioPhono deserves partial credit here.

On Joni Mitchell's *Blue*, the harmonics, particularly on the dulcimer on "All I Want," rang true. The emotional expression behind her singing shined though with plenty of breath and energy in a lively and lovely presentation. Decays on piano chords took their time fading against a quiet backdrop. Nor did the MoFi shy away from the jump-swing style piano boogie of "Saturday Night Fish Fry" from Jon Hendricks' *Fast Livin' Blues* [ORG]. The rapid-fire upright bass plucking was delivered with

substantial impact and snappy control. The midrange, notably on brass and vocals, took a front seat. All instruments were rendered with bloom and dimensionality.

Madeliene Peyroux's "Don't Wait Too Long" from Careless Love [Mobile Fidelity] was solidly imaged and slightly forward. Her and the musicians' placement within the soundstage seemed pretty spot-on. Once again, body and bloom were registered galore, from subtle snare brushstrokes to double-bass plucks. Turning to something more raucous, I played the MoFi LP reissue of the Pixies' Doolittle. The UltraDeck+ and Studio-Phono combo handled the hard-hitting percussion, and both the grungy lead and rhythm guitar licks admirably. The wild layers were all there yet effortlessly controlled. On "Monkey Gone to Heaven" the low-key cello strings emerged with life-like presence rather than fading into the background.

For some time now I've been enjoying the Acoustic Signature Challenger Mk. 3 turntable as my analog reference. With its upgraded TA-2000 tonearm and the superb Air Tight PC-7 mc cartridge this front-end setup tallies into the \$5k-\$6k range. Knowing full well that the MoFi UltraDeck+ wasn't in the same price category, I'll admit I had some slight reservations—as well as a strong curiosity—about taking the MoFi UltraDeck





for a spin. Immediately, however, I was delighted...relieved? (Surprised isn't the right word; I trusted that MoFi wouldn't put out something that wasn't ready for prime time.) As this hobby goes, the comparative differences from my reference setup could mainly be heard in the subtleties—in degrees of resolution. There was a slight softening of edges and a slight veiling or damping on some recordings. Soundstaging might not have had the same cavernous depths, but there was still a strong, stable sense of image placement. There was also a pleasant politeness to the proceedings—though this might also have been due in part to some inherent mc vs. mm cart differences. In other words, nothing about the MoFi offended or stuck out; all elements seem well balanced. Imaging, musicality, pitch stability, and presence emerged as strong themes throughout my listening.

Distinguishing itself as a cut (and then some) above the entry-level, the MoFi Electronics UltraDeck+ and Studio-Phono system does its makers proud. It's bound to please a broad range of music lovers, who may or may not (yet) consider themselves audiophiles. Bottom line: The UltraDeck is a smartly conceived and finely honed design that's already earning its place as an instant classic.





#### AN INTERVIEW WITH ALLEN PERKINS, TECHNICAL DESIGNER, AND JOHN SCHAFFER, PRESIDENT OF MOFIELECTRONICS

## What was your first involvement in and initial reaction to this turntable project?

John Schaffer: I already had a long business relationship with Josh Bizar from my days of owning Wadia when he approached me about joining this venture. The most exciting part of this opportunity was being a part of the decades-long legacy of the Mobile Fidelity brand, and I wanted these products to reflect that legacy. Wadia was a digital audio company, so I have a lot of audio experience but not on the mechanical side for analog, so I needed somebody to be a mentor, a design consultant, to really create the vision and direction for us. And that was Allen Perkins. We had another challenge: to align it with Mobile Fidelity's philosophical roots, where we come from as a studio, what we really believe in. Allen instantly understood the challenges and was able to help me distill his ideas into something that we could produce and hit the aggressive price points that we wanted yet represent the core values of MFSL. It was just kind of magical how it all came together. It wasn't fast but it was pretty magical.

Allen Perkins: One of the things that came up right away with Josh [Bizar] in our very first conversation was, "We want to make things at a price point people can actually afford. Can you actually design things at that price point?" Because my [Spiral Groove] products are so expensive. Yes, I really believe I can design to any price point because I always look at what the most fundamental issue is. I try to go to that physics level. If you can figure out some clever way to address that you can apply a lot of different materials, machin-

ing, fit and finish levels, so the price doesn't have to [escalate]. With MoFi I felt like because the brand represents a high level of performance, that things should work really, really well. This shouldn't ever be a product about which someone says, "Well, it's good enough for what it costs." I don't ever like to hear that. I want something that always performs above its price point.

# What were some of the parameters of the design brief? How did they change over time, and what were the challenges?

AP: MoFi Electronics wants to produce very unique and original and high-quality products. A lot of people are putting out quality products, yet there is not a lot of innovation going on with most analog gear. To make something original, that is the true challenge. Most cartridges are based on 1940s patents and 'arms haven't changed much since the 60s in terms of fundamental design. What's changed is the ability to make higher precision parts and new materials are more available, titanium for instance.

So we agreed that I'd go through the parameters of what I think makes a good turntable or would be good for MoFi Electronics' needs—it should be this kind of tonearm, this style of bearing, this type of material or platter. I gave them a laundry list and said, here—go design.

They came back with initial designs, and I critiqued them and helped them modify and refine them. They made prototypes, and I listened. I suggested changes to



the design, and then this whole process was repeated a few times before they went into production. At one point I visited the factory and suggested changes to parts, how they might test parts, how they might ask the machine shop for something to be changed—basic massaging of the final product.

## What were the particular challenges during the design or production processes? What, if anything, was non-negotiable?

AP: The bearing—those are physics things. If we want to be driving on a single plane then you have less chance of oscillation. So the bearing contact point for the ball and thrust disc is at the same plane the belt is driving on. It's pulling straight sideways; it's got sleeves but the rotational point is where it's being driven and that creates less oscillation. Any resultant speed fluctuation there kills imaging. It's the reason my 'tables don't have suspensions. There are a lot of little things I do to prevent speed fluctuation because to me that's what starts differentiating really good 'tables. It's when you hear this depth and breadth of image that is super subtle information your ears are hearing. That's lost with micro speed fluctuations. To me that's why I've never heard suspended 'tables sound as good... Also AC motors always sound better than DC motors to me, although they're less ubiquitous and harder to find.

WE WANTED TO DO SOMETHING AUTHENTIC. WE WANT TO DEVELOP OUR CRAFT AND UNDERSTAND IT FROM A GROUND-UP LEVEL.

#### Why was it important for you to keep the production in the U.S.? Was it a hard sell to the "powers that be"?

**JS:** It was not a hard sell at all. We really wanted to do something that was authentic. When you think of Mobile Fidelity Sound Lab the first thing you think of is original mastertape, of Original Master Recording. The engineers start at the source and control it all the way through the signal path. We want that expertise. We want to develop our craft and really understand it from a ground-up level. So with that in mind we thought, well, there's only one way we're going to be able to control those variables, and that's if we do it ourselves. This is where I have to give [Music Direct President] Jim Davis credit because he stepped up and made the investment necessary in this day and age to build a factory to produce analog products in the U.S.

AP: If you just want to do the "Business-major" plan—I'll get a motor here, then have this built there, and have this Chinese stuff done there—that's different. There are cost-savings potentials with all those things, and it looks really good on paper but when you're doing a new product, you need to control it; you need to know all the parts fit. Then maybe the colors aren't the same—there are endless shades of black.

If you don't really start that the way these guys did in-house, I think you're going to fail; you're going to make a substandard product. And I can tell you from my many years of experience how these failures happen because I've probably failed in most of the ways you can. [laughs.] So MoFi benefits from my decades of experience, and for me, the entire process has been a lot of fun bringing these products to fruition here in the States. LOSS