

VPI Prime

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VPI industries is one of the shining stars in the US high-end firmament. Based in New Jersey, the company has been making turntables, tonearms, and record cleaning machines for decades. VPI has recently been passed from father to son, Mat Weisfeld taking over from his father Harry a couple of years ago. Nu-VPI emerged with clever turntables like The Traveller, and modifications to existing high-performance turntables like Scout and Classic. Prime is Mat's first true 'from the drawing board' high-end deck, and he has hit the ground running. Those who know the guy are hardly surprised by this – he's the sort of guy who leaves dynamos gasping for breath.

However, Prime is also like a distillation of all things VPI. It has elements of the TNT. It draws from Scout and Scoutmaster. And Prime learnt from Classic. So, VPI's Prime calls upon the same inverted bearing, machined aluminium platter, and Delrin plate/cone and rubber isolation system from the Classic, but with an external motor block like a Scout, and a vinyl-wrapped MDF plinth that is drawn straight from the TNT playbook. This resolves the other big potential problem with father-son handovers – the son's desire to make his own 'mark' on the company, that he changes everything the company stands for. It's a delicate balance between being 'a safe pair of hands' and going a bit Shakespearian tragedy. Fortunately, Mat seems to have that balance perfectly achieved. The Prime shows someone willing to build on the VPI legacy, yet not be hide-bound by it.



This is why using the same steel-shaft and chrome-hardened ball bearing from the Classic (and the Scout 2) is clever in two ways; it means the Prime falls back on one of the most tried and trusted bearings in the high-end, and – for those who've not used a VPI before – it's the key to the turntable's low-maintenance 'service' routine: a few drops of motor oil every year. The hardest part of this is putting the date in your diary.

The signature part of the Prime, however, is the JMW 10 3D arm. This is essentially the 10" version of VPI's evergreen – and ever popular – unipivot tonearm, but with a clever twist. In place of the regular alloy armwand, VPI supplies this package with a 3D printed arm, made out of a high-purity, non-crystalline epoxy. This is a direct replacement for existing users, or those wanting a collection of different armwands for different cartridges. The advantages of a 3D-printed armwand are fairly substantial for a tonearm – it becomes a one-piece structure, as light and as rigid as possible. Even tonearms with carbon-fibre armtubes (which do the light and rigid thing really well) have to resort to good ol' metal for the bearing housing, where the JMW 10 3D arm is one complete structure. The 3D manufacturing process is currently slow, so if every JMW user became a JMW 3D user tomorrow, there would be a back-order list that would make Morgan cars blush. But, it's both a high-tech and a high-practicality solution, and I can't help feeling it's also one that is actually being passed down to the end user.



A 3D printed arm is an exercise in smart and modern engineering thought. Even though we are in the midst of the vinyl revival, high-end tonearms are not built in massive quantities any more, and the numbers made means the cost of each arm is equivalent to building a one-off prototype. Prototyping today is done on a 3D printer. So why not build low-number tonearm parts on a 3D printer? It's simple, clever, and improves the performance. What's not to like?

As ever with VPI though, there are some upgrades to consider, bringing the turntable still further up the audio performance spectrum. These include the Synchronised Drive System off-board PSU and a Periphery Ring clamp. They have been discussed before in the context of other decks in the VPI range. We went au naturel, relying on just the standard rubber matt and the hold-down clamp.

I wanted to use this with the excellent Benz-Micro Glider SLR cartridge, but had a recent klutz-related cantilever disaster, so instead drafted in an old, yet wonderful, Ortofon MC7500 moving coil cartridge and the excellent Origin Live Aladdin moving iron design. It didn't matter about the SLR, though, because even the Aladdin showed what this system was capable of, and the MC7500 showed just how far you can take that system.



For a potentially complicated build like a turntable, the Prime is very easy to put together. It comes complete with everything you could need to set up a turntable, including protractor, stylus weight gauge, and a folder that is a comprehensive build manual. You might not need this. VPI has also put together a YouTube video of someone building the Prime. Start to finish, this takes 15 minutes, although realistically it's going to take an hour or more if you're new to turntables, or less than an hour if you're not. OK, so some wag has commented that this build requires an engineering degree, but unless you are so technologically challenged that your screwdriver set comes with a fire extinguisher, installation is not a difficult process.



The arm is perhaps the hardest part to install, as the rest of the Prime's set-up comes down to levelling, spacing, and inserting. The arm itself is still relatively easy to install, because as a unipivot, removing the armwand simply involves undoing the connector at the top of the bearing housing, and this means you can attach cartridges fast. The 'hardest' part is VTA adjustment and setting it to your requirements. But, as you can adjust this 'on the fly', that's not a problem.



The Prime is every bit the high-end table. It has the deep, stentorian bass depth and dynamics, the high-frequency shimmer and sizzle, and the disappearing midrange that you would expect from one of the top tables, and it also has the almost eerie absence of background noise that sets the great apart from the merely good. And, like all good decks, it manages to make LP surface noise appear less troublesome.

How the Prime does this is fairly straightforward. The combination of turntable that's extremely well isolated from its environment, an arm that's similarly decoupled from its surroundings, and an armtube that is extraordinarily free all mean the deck introduces little to the sound, just allowing the cartridge to track the recording with complete accuracy.

I don't want this to sound like faint praise, because it's actually farthest from that, but what the VPI Prime does so well is to act blamelessly in the record-playing process. It removes a level of imprecision and inaccuracy to the sound that people often come to accommodate in their music playing, but really shouldn't ever have to. This comes across perfectly when listening to 'Courting is a Pleasure' from Nic Jones' Penguin Eggs album [Topic/Three Black Feathers].

This is extremely traditional English folk, in the late 1970s tradition of worthy folk played well by acoustic guitarists, but doesn't give up its charms (and its soundstaging) easily. Here, that absence of self-noise, the precise speed, and the tracking ability of the arm all paid off, making this difficult album a joy to hear. By getting out of the way entirely, the VPI Prime simply let the cartridge do its intended job. Most other turntables make this music 'fall' out of the speakers, but with the VPI it just sang!



This is an extremely detailed, yet not harshly analytical sound. It's like putting you in the control room where the master tape is playing; tiny, nuanced gestures normally lost in the mix are resolved easily here – not in a surgical strike on all things audio, but like an honest, blameless reference point that we should ultimately strive to achieve.

We British types have a peculiar connection with how something 'times', but through the Prime, you begin to see this is making a feature out of a limitation; that deep, powerful bass doesn't make for a taut, boppy sound unless

it's on the recording. So, Zakir Hussain's Making Music [ECM], presents itself as an expansive soundstage. The pace and energy of the players is retained (and they are fast – John McLaughlin is the guitarist!), but not in a forced way. The Prime has excellent contrast, texture, and musical shading, too. All the hallmarks of a super-deck, save for the price!

In wrapping this review up, the thought process ran along the lines of, 'how much would you expect to pay for a turntable like this?' in terms of outright performance and build. And, in both cases, I came up with the same answer. Moreover, those who heard and saw the VPI Prime in situ were tasked with the same question, and they typically came up with broadly similar responses. And that answer was that if you snuck in a '1' in front of the price tag, few people would be any the wiser. VPI's Prime has the look, the feel, and more importantly the performance of a £10,000 turntable package.



The company with the following of VPI could easily struggle in the handover from father to son. But with Prime, and especially with the JMW 10 3D tonearm, Mat is proving himself not simply a safe pair of hands, but an innovative designer with a good pair of ears in his own right. This would be an extremely competent turntable from the drawing board of an established expert with decades of experience under his belt, but from a comparative newcomer, the Prime is a true star. Very highly recommended.

Technical Specifications

Type: Belt-driven, non-suspended turntable, with 3D printed unipivot tonearm

Turntable

Chassis: Black textured vinyl over MDF, with an 11-gauge steel plate bonded to the underside

Isolation: Four adjustable Delrin corner assemblies

Motor: 300rpm, 24-pole AC motor in a separate aluminium and steel housing

Bearing: Inverted design, hardened stainless steel shaft, 60 Rockwell chrome hardened ball, phosphor bronze bushing, PEEK thrust disc

Platter: machined 6061 grade aluminium, 9kg

Wow & Flutter: >0.1%

Speed accuracy: >0.03%

Rumble: >-85dB

Tonearm

Pivot to spindle distance: 258mm

Effective length: 273.4mm

Overhang: 15.4mm

Offset angle: 19.98°

Average RMS distortion: 0.311%

Internal wiring: Discovery wire, optional Nordost Valhalla

Dimensions (W×D×H): 53.5×40×19cm

Weight: 24.5kg

Price: £3,750

Manufactured by: VPI Industries Inc

URL: vpiindustries.com

Distributed by: Renaissance Audio

URL: www.renaissanceaudio.co.uk

Tel: +44 (0)131 555 3922