Kronos Sparta/Sparta 0.5 turntable and Helena tonearm

by Alan Sircom

There is something cool about older audio technologies – it’s the large spinning parts and the engineering. But there are levels of cool – few compare to an old Studer or Nagra. The Kronos, with its three layer construction and counter-rotating platters, is a notable exception. However, it’s a costly, limited edition affair: partner it with an arm, cartridge, and phono stage of similar standing, and you’ll have a bill somewhere north of £60,000 for the whole vinyl replay chain.

The Kronos Sparta is a more attainable proposition. In fact, it makes the whole counter-rotating platters concept attainable in stages, because you can start with a Sparta 0.5 and then purchase an upgrade kit that includes the additional subchassis, platter, and motor required to turn this into a full-blown Sparta.

As the name suggests, the Sparta is stripped-down. “We were inspired by the legendary city of Sparta in designing this turntable,” says designer Louis Desjardins. “Our goal was...
“Regardless, it’s extremely light, extremely rigid, and critically damped... the Holy Trinity of tonearm goodness.”

to embody its values of strength, durability, and unwavering efficiency.” Although presumably without going into battle naked. Joking aside, I think the pared-back Sparta looks more business-like and purposeful than its bigger brother, and in some ways I prefer that to the larger, more ornate Kronos.

The Sparta features a solid frame base with four suspension towers and the motor housing, from which hangs the subchassis and platter (or platters) off o-rings: two per tower in the basic model. The Sparta 0.5 sports a single subchassis, with a mounting plate for one tonearm.

If you are upgrading the Sparta, you need to replace the bars inside the towers to accommodate the extra platter and sub-chassis, double the number of o-rings, (from two per side to four) on each of the four tower heads, and then use these to bolt the upper and lower subchassis together. You also need to unbolt a plate on the underside of the base, releasing the power connecting cable for the second motor, and adding length to the main motor, swapping out the stubby chrome motor tower with a taller one on the far side of the deck in the process. This also gives you an understanding of just how well-engineered this deck really is, and the fact you can perform the whole upgrade armed with two Allen keys and a screwdriver (supplied) is a mark of how the project is so well thought through.

In fact, the only aspect that needs a little care is making sure the two decks counter-rotate at the same speed. The flat power supply (designed to be slimline enough to sit under the Sparta’s base-frame) has speed control adjustment, but here’s the trick for upgraders – get the main platter up accurate first, then strip back and add the second platter and attach a small piece of masking tape marked with a vertical line to both platters. If they cross at the same points in every rotation, the two platters are perfectly aligned. If that crossing point begins to move, adjust the speed control of the second platter.

Our deck came supplied with the new Helena arm. A 10” version of the 12” Black Beauty unipivot tonearm (also designed and built by Andre Theriault of Montreal), it’s an arm within an arm, with wood fairings between the inner and outer carbon-fibre arm tubes. Louis Desjardins is convinced this arm tube design is virtually indestructible, and given he has a habit of whacking one against the architrave of a nearby door at full force, leaving a tonearm-shaped imprint on that door frame in the process, he’s probably right. Regardless, it’s extremely light, extremely rigid, and critically damped… the Holy Trinity of tonearm goodness.

Like the Black Beauty, the Helena is also an inverted unipivot (actually I think it’s a ‘non-inverted unipivot’ as opposed to most unipivot designs), using a large ball bearing on the armtube and a large oil-filled metal cup on the arm base. The counterweight (also doubling as the azimuth adjustment) is underslung, in the manner of Vertere and the Michell Technoweight). It connects to the outside world using a top-mounted twisted quartet of lead-out wires, which mount to a terminal block on the base of the Sparta. This makes it essentially a one-deck arm and there appear to be no plans to supply the arm for other turntables. Anti-skate is not needed because the arm’s pivot point is on the same horizontal plane as the groove/stylus contact point, thereby removing vertical leverage: why add an unnecessary oscillating system?

Moving away from Kronos-based products, we used this with a vdH Crimson XGW cartridge moving coil cartridge into the award-winning Pass Labs XP25 two-box phono stage to complete the vinyl playing front end of the system. This ended up being one of those perfectly balanced systems, with the energetic and exuberant way the Crimson cartridge pulls information off the disc being in perfect step with the harmonic structure the Pass Labs bestows to the RIAA equalisation process. In effect, this combination (aided by Dr. vdH’s obsessive attention to detail, itemising every parameter of that particular ‘Stradivarius’ cartridge, and the XP25’s ability to attend to those parameters perfectly from its front panel) dials out any upssets in the phono replay chain, and anything getting in the way comes down to the turntable and arm.

This honesty of cartridge and phono stage could be a death sentence for the reputation of some turntables, exposing upper-mid blooms here and ringing top ends there. But not the Sparta 0.5 and especially not the Sparta. The latter took everything thrown at the turntable in its stride. Let’s dispense with the well-recorded, neatly manicured LPs that form audiophile listening tests – it does supremely well with these – but let’s be honest: Cantate Domino [Proprius] has been used to sell record players for decades because it sounds great on almost anything. Contrast this LP with Main Offender, Keith Richards’ solo project from 1992 [Virgin]; a very
well-recorded album, but one cut to give a very live feel. As a
consequence, it’s a trade-off between the rim-shots of Steve
Jordan’s drumming and the almost ‘back of the studio’ vague
sound of the backing vocals. It teeters on a number of edges:
too bright and the percussion swamps the recording; too
dark and the vocals begin to sound like everyone has a heavy
cold (and Richards sounds more ‘medicated’ than usual); too
rhythmically imprecise and it sounds like a rehearsal.

Main Offender is an album that gives no quarter to the
audio signal chain. But get it right and the whole thing comes
together brilliantly, and it makes you realise that “Keef” is more
than just a caricature of a drug-addled guitarist. He can pen
a good tune, and controls a surprisingly tight band using just
those five strings (he famously never uses a low E string).
You’ll never know that with turntables that are simply ‘good’
or ‘great’ – it will all sound a bit of a cacophony and a mess.
Kronos is beyond that. The Sparta 0.5 untangles the sound-
knot of the track ‘Bodytalk’ well, without sacrificing the music
or the information. But the Sparta itself teases out a surprising
amount over and above that. It makes it “real”. There is also a
distinct by-product that this album highlights – Sparta allows
you more scope to turn the music up. Once again, this comes
down to the hidden good recording within: it can easily sound
thin and compressed just like most Rolling Stones recordings,
which gives Main Offender a very precise volume ceiling –
play it too loud and it quickly becomes aggressive it seems.
However, this is a mark of how good the Sparta 0.5 is and how
the twin-tub Sparta improves on the basic performance of the
single platter – you can play an LP loud on the 0.5 and really,
really loud on the full-fat Sparta. The recording delivers more
headroom through the 0.5, and then still more as you upgrade.

The Sparta isolates the LP from the rest of the world.
I know this is seemingly the goal of every turntable maker
from the dawn of time, but the Sparta follows the Kronos in
actually delivering the goods. The only vibrations here seem
to be from the groove itself. The Sparta 0.5 retains a tiny
amount of mechanical vibration inherent in most vinyl replay
systems, which comes across as almost a smearing of bass
notes that you can just about detect on ‘The Word Girl’ by
Scritti Pollitti [Cupid and Psyche ’85, Virgin]. But you can only
notice this when hearing what the full Sparta is not doing and
working back, so used are we to this sound from LP. Even the
The New York Scene from the Marty Paich Big Band [Discovery] shows this – and that is a true audiophile record. Through the standard 0.5, this album has pace and dynamic range aplenty, but there is a touch of blurring of the horn section when the band is at full tilt. This is what I’ve come to expect from the record, because you heard that on everything this side of an old Vovd Reference. The full Sparta just sweeps that away, and all that’s left is the vinyl.

When I played the Kronos, I felt it was like the best of all decks with none of the downsides. In fairness, that the full counter-rotating system is permanently in place on the big deck meant it’s hard to process what is going on and what the Kronos was getting so right. The step from Sparta 0.5 to Sparta explains this perfectly. What you are getting is convergence: the lack of resonance, vibration, or anything from the full Sparta sets this deck apart from the rest, and the result is simply full vinyl disclosure. You might spend two hours or more stripping back the 0.5, adding the extra platter, rebuilding it, getting the two belts in place (perhaps the most fiddly part of the whole process) and getting the speed of the counter-rotating platters in sync… and then know it was money well spent within two bars of music for that reason.

Sometimes there are ‘improvements’ that are more about spending money than actual performance benefits, and sometimes there are changes to the sound that don’t improve the performance in a linear fashion. These are the kind of changes that end with ‘hmmm… I’ll think about it’. That’s not how the two-deck Sparta pans out. You have one platter, you try two, you buy two. It’s that simple. If I were demonstrating this, I’d be happy to spend time installing that second platter on site, because I’d always go home with an empty van and a full wallet. But it’s not that the Sparta 0.5 is half a deck, or an obviously compromised stepping-stone to the full two-platter experience. Anyone could happily live with the Sparta 0.5 for years: right up until the moment you try the second platter; then there is no going back.

That arm is outstanding too. There’s little need for discussion about alternatives in this context, the Helena is the perfect partner for the Sparta and vice versa. Other arms – even ones considerably more expensive and with outstanding reputations – are simply not a consideration. You’d be hard pressed to find better.

There’s a fairly basic term in all this audio stuff, a signal that gets lost in all the noise. But it’s there at the bottom of every page of this magazine – ‘hi-fi’. And it’s short for ‘high fidelity’. The goal of every audio device should be an ever-higher fidelity to the original sound. The Sparta and Helena achieve that. Very highly recommended. +

TECHNICAL SPECIFICATIONS

**Sparta 0.5, Sparta**
Rotational speed: 33.3 rpm & 45 rpm.
Tonearm length: 9” to 10.5”
Power supply: dual channel pure Class A linear DC
Motors: 2432 precious brushes DC motors (qty 1 in Sparta 0.5, 2 in Sparta)
Motor mounts: Delrin capped aluminium tubes
Platters type: Composite compressed phenolic/ aluminium, balanced.
Platter weight: 12kg
Drive: 1 silicone/viton 2.3 string belt per platter
Service interval: 5 years (clean and re-oil)
Main bearings: dual hydraulic inverted sleeve and ball.
Lubricant: 8 ml. variable viscosity synthetic oil
Service interval: 5 years (clean and re-oil)
Suspension: full floating top suspended
Elastomers: 317 o-rings, viton/silicone proprietary mix
Dimensions (WxDxH): 51 × 36 × 28cm (Sparta)
Weight: 32 kg (Sparta)
Price: £14,000 Sparta 0.5, £20,000 Sparta (upgrade £7,000)

**Helena tonearm**
Type: carbon fibre unipivot tonearm
Bearing type: proprietary ball and spherical mirror unipivot
Armtube: overall high modulus carbon-fibre composite, selected wood fairings between inner tube and outer shell
Effective length: 266.7mm
Effective mass: medium
Overhang: 15.4mm
Pivot-to-spindle distance: 251.3mm
Max. tracking error: 0.0159
Cartridge weight compatibility: 7–16g
Shipping dimensions: 42×14.5×11.5cm
Shipping weight: 3kg
Price: £6,500

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