Avid also builds the battery recharge point, foot pedals, indicator stalks, rotary switches, seat adjusters, wheel adaptors and rear number plates for the UK’s revolutionary Strike GT electric sports cars.

Avid builds all these products—along with its own turntables and electronics—in its dedicated facility in Bicton Industrial Park, Kimbolton, Huntingdon, Cambridgeshire, UK, because it specialises in CNC milling and turning of aluminium, brass, steel, Nylon and Delrin not only for itself, but also for hire. The factory’s motto is: ‘Quality: on time and on budget.’

**THE EQUIPMENT**

When I unpacked Avid’s new entry-level (OK, so it may not be an ‘entry level’ turntable per se, but it’s certainly ‘entry level’ given the prices of the seven other turntables in Avid’s range), I was reminded of Paul Simon’s classic song *Hearts and Bones*, because the Ingenium is certainly skeletal, and comes with a completely separate ‘heart’ (a.k.a. drive motor).

Despite being entry-level, the Avid is built along exactly the same lines as the company’s high-end offerings, and incorporates many of the same elemental components.
Chief amongst these is the company’s unusual upside-down platter bearing. Note that I said ‘unusual’ rather than ‘unique’, because the technology Avid uses was around for many years before Avid adopted it, and is used by some other turntable manufacturers. However, although it’s still ‘unusual’, it’s certainly not unique.

As for that design of that bearing, it comprises an inverted stainless steel thrust shaft which is topped by a tungsten carbide steel bearing rotating on a piece of sapphire. Tungsten carbide and sapphire being the materials they are, the bearing is extremely strong, but you do have to be very careful when assembling the turntable (particularly when slipping the very heavy drive hub down over the spindle) not to cause any damage. It’s not at all difficult, but you do need to follow the instructions in the manual exactly…and not least because Avid specifically excludes the thrust bearing and spindle from its 5-year warranty.

One huge advantage of an inverted bearing is that it’s self-stabilising, which—all other things being equal—means superior speed stability, higher inertia and better planar rotation than a conventional bearing. Avid’s bearing also does not require regular lubrication (though Avid does recommend that the bearing be professionally lubricated every ten years.)

The bearing sits on a ‘T’-shaped section of solid aluminium bar that’s up to 63mm thick. This bar is also the support for the tonearm. Underneath the bar are three depressions into which fit three large circular Sorbothane damping feet… or at least the primary material is Sorbothane. According to Avid, it has a partnership with Leyland Rubber (UK) and, in conjunction with their local university, the three have developed a superior formulation of Sorbothane that, according to Avid’s founder, Conrad Mas, is “the most impressive vibration absorbing material we have encountered.”

The cork-topped MDF platter of the Ingenium sits atop the drive hub, which is turned by a rubber belt powered by a 240V 24-pole synchronous a.c. motor that’s isolated within a separate housing. A two-step pulley enables 33.33 rpm or 45 rpm speed selection by manually moving the belt.

Our review sample was fitted with a Project 9cc carbon-fibre arm but you can also specify a Rega RB303 tonearm if you prefer. You can also buy the Ingenium pre-fitted with either a nine-inch (229mm) SME arm or one of SME’s super-accurate twelve-inch (305mm) arms. And if you’re one of those audiophiles who uses dual arms in order to avoid constant cartridge changes, you also have this option available to you: simply ask Avid to fit a second arm-mount, which it attaches to the ‘T’ section opposite the standard tonearm mount. (However, Avid very wisely suggests that if you are intending to fit two SME arms, it might be more cost-effective to consider moving up in Avid’s turntable range to one of its higher-performance models.)

Our review model also came with Avid’s LP clamp, which at the time of the review was a separately priced option. However Avid’s Australian distributor advised us at the time of going to press that all models available in Australia will in future come standard with the LP clamp. So by the time you read this review, the Avid Ingenium, with clamp and your choice of either a Project 9cc or Rega RB303 tonearm, will retail for $2,499. (Add $152 for an Ortofon 2M Red.)

**IN USE AND LISTENING SESSIONS**

I was not entirely enamoured of Avid’s instructions for positioning the motor relative to the platter, not least because it doesn’t actually specify where the motor should be placed. There’s a photograph that shows its approximate placement, but that’s about it. The only other advice Avid offers about positioning is that: ‘moving the main chassis closer or further away from the motor will adjust the speed.’ This I didn’t understand at all. The rotational speed of the platter is determined by the ratio of its circumference to the circumference of the drive pulley and the rotational speed of the drive pulley. Since these don’t change with distance, I fail to see how the speed could be affected unless the belt becomes so slack that it slips on the drive pulley, or so tight that it slows down the motor… both of which would seem to me to be undesirable scenarios. I think Avid should include in the manual a dimensioned diagram that shows exactly where the motor should be located. (The location of the motor does cause a minor inconvenience, which is that in order to switch speed from 33.33 rpm to 45 rpm or vice versa, I found it necessary to remove the platter in order to gain easy access to the drive pulley.)

As it happens, I located the motor approximately where it appeared to be located in Avid’s photograph. I then checked rotational speed with a strobe disc and found the platter rotating very, slightly fast, but the discrepancy was so small that at first glance the strobe actually appeared to be stationary: it was only when I looked really closely that I could detect a very slow movement of the bars. I then experimented with moving the motor to and fro, but could determine no change in platter speed as a result of the changes in motor/chassis distance.

### AVID INGENIUM TURNTABLE

**Brand:** Avid  
**Model:** Ingenium  
**Category:** Turntable  
**RRP:** $2,499 inc. arm (w/o cartridge)  
**Warranty:** Five Years  
**Distributor:** National Audio Group  
**Address:** Level 1, 585 Burwood Road Hawthorn VIC 3122

- Superb bearing  
- Rotational stability  
- Silent running  
- Dustcover (option)  
- Speed switching

Contact: info@nationalaudiogroup.com.au  
info@nationalaudiogroup.com.au  
www.nationalaudiogroup.com.au

avhub.com.au  |  hi-fi |  41
I then played an LP with a constant test tone and, in conjunction with a frequency counter, discovered that the increase in platter speed was actually so small that the effect on musical pitch would be in the order of 0.03 cents. (A cent is one hundredth of a semitone.) This difference is so small that even a musician with perfect pitch would be unable to detect it, even if he or she were playing along with a perfectly-tuned instrument. (If you'd like to hear a one cent difference in pitch, you'll find an example at www.tinyurl.com/one-cent-pitch-diff.)

Although Australian Hi-Fi Magazine usually photographs turntables without their dustcover, I need to tell you that in this case it's because the Ingenium does not come with a dustcover. Since I personally think that some sort of dustcover is absolutely essential (otherwise, whenever you play an LP, you're exposing its surface to dust and dirt particles, which are what causes those 'click' and 'pop' sounds) I am pleased to be able to tell you that Avid offers several different types of dust cover (which you can view on its excellent website). My advice is to invest in a dustcover, but make sure it's one that can be placed over the 'table while an LP is playing. (Some of the dustcovers pictured on Avid's site appear to be able to be used only when an LP is not playing, which rather defeats the purpose of keeping dust off the LP.)

You can also see Avid's clamp in the photograph. This clamps screws down over a thread on the spindle. (And does so perfectly, I might add—the quality of the machining is exceptional.) Although all future Australian models will all come with a clamp as standard, I still tried the turntable with and without it, and definitely preferred the sound of my LPs when they were clamped. Without the clamp the sound seemed to ‘bloom’ unnaturally and become a touch defocused.

As usual, I checked cartridge alignment before I started my listening sessions, and found everything spot-on. Avid doesn’t provide any alignment tools with the turntable, so if you need to align a cartridge, I’d advise investing in Pro-Ject’s ‘Align-It’ tool. There are other similar cartridge alignment tools available, but the Align-It is the least expensive of them. Normally I would suggest you also invest in a stylus pressure gauge, but my experience of the Pro-Ject 9cc is that it’s so well-built that its own calibrated counterweight will get you close enough to the specified down-force to allow any final tweaking to be accomplished by ear. So you can save yourself a few bucks here at least.

The deal-breaker for any turntable is the presence of audible wow and flutter, so I always test for these mortal sins before spending any more time with a review, and I most always use the same old war-horses: Liszt’s Légende No 1 St François d’Assise, Satie’s Gymnopédies, Chopin’s Nocturne Op.27 No.1, and John Field’s Nocturne No.10 in E minor. All have the advantage of not only being wonderful test pieces for both wow and flutter, but also enjoyable to listen to, so it’s no great trial if I have several of these works, so rotation is easy. Just as a heads-up, although I prefer Nikolai Demidenko’s version of the Légendes, Leslie Howard’s version is very good and if you like Liszt, you can currently buy all of his piano music (on 99 CDs though, not LPs) as played by Howard, for just $334, which is fabulous value for money… and it’s on Hyperion, too!

ConCLusion
Pitch-perfect rotation, with no wow—or flutter—and no extraneous low-frequency noises: What more could you want from a turntable? This one’s a definite keeper! — Chris Croft
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Integrated Amplifier

Marantz CD5004
CD Player

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