

Tron Seven Phono GT

This new phono stage from Tron Electric represents the ultimate development of its antecedent variants, and promises to take vinyl replay to new heights

Review: **Adam Smith** Lab: **Paul Miller**

In today's world of vinyl replay, it is acknowledged that the phono stage is one of the most important links in the chain: the critical interface between cartridge and line amplifier. However, re-wind 30 years or so and while a separate phono stage was perhaps not completely unheard of it was a rarity. It was expected that your amplifier, preamp or control unit would come with such a facility built in.

Budget amplifiers like the NAD 3020 came with a good quality moving-magnet input while higher-end designs offered multiple turntable connections with MM and moving-coil options, usually with variable loading, gain and a handful of useful filters too. But then, in 1982, everything went a little awry with the arrival of the compact disc, which put a stop to all this fun and games.

The 'death of vinyl' that we were all assured was imminent was taken as a cue by most manufacturers to do away with those turntable inputs that they felt sure that nobody wanted – or at least, not for much longer. Of course, hindsight is a wonderful thing: that demise we were promised never occurred. But where does this leave our amplifiers?

The phono inputs that vanished in the 1980s may slowly be creeping back into integrated units once more, but they are often little more than an afterthought. Nowadays, if you are serious about your vinyl, the standalone phono preamplifier is the way to go, and the selection available has never been greater. That said, at the very top end of the market, where price tags can head towards five figures, the choice is still a little sparse – names like Kondo, Air Tight, Burmester and NAT spring to mind.

As the cartridges with which these are partnered are often very low output, careful design and super-high quality

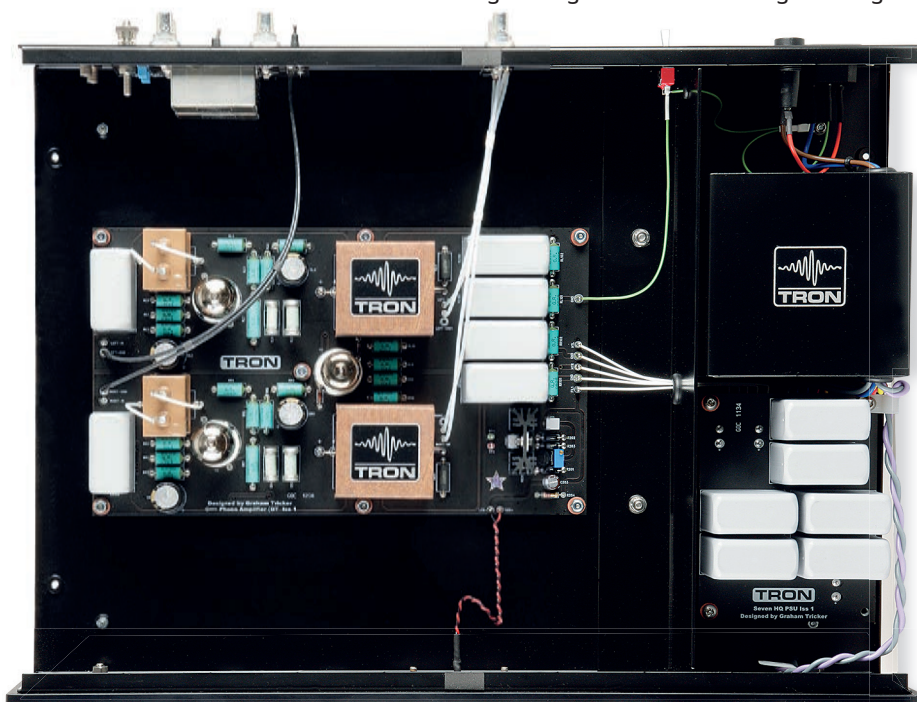
componentry are required to ensure maximum detail and minimum noise. The latest contender is the GT version of the Tron Seven phono preamplifier, a unit that marks the ultimate evolution of the basic design.

KEEPING NOISE DOWN

The Tron Seven range starts at £1995 for the MM version of the base model, rising to £2995 for the MC variant. The £4600 Reference model builds on this unit and adds high quality resistors and capacitors that are exclusive to Tron and used in its flagship Syren II preamplifier. Next up is the previous range-topper, the £7790 Ultimate, which adds silver-wired MC transformers and 'four nines' silver internal wiring. It also has twin switched inputs, with MM and MC, or twin MC options. Finally, the new GT reviewed here adds a unique power supply configuration and, as a bonus, Tron claims that it offers valve life of up to ten years in normal use thanks to its soft-start feature.

The PSU is housed in its own screened compartment within the enclosure and its connections pass through to the Seven GT's meticulously designed, multi-layer amplifier PCB. Further PCBs accommodate the input connection and gain stages, thus keeping the amount of hard wiring to a minimum – important for the low noise required of such a design. Finally, all components are hand-matched down to tolerances of 0.1% in some cases; the valves themselves, the well known and easily available 12AX7 and 12AU7 types, number only three for circuit simplicity.

The GT is offered only in moving-coil format, albeit with two user-specified gain settings. Typically, the GT is ordered with +18dB and +24dB gain options or, as in this version supplied for our review, +24dB and +30dB. Here, the two settings are intended to service MC cartridges with output levels of 0.2-0.4mV or 0.05-0.2mV, respectively, as they combine with the final fixed 'MM' gain stage of +49dB. Cartridge loading



RIGHT: Three triodes are used in two gain stages with wholly passive RIAA equalisation. The silver-wound MC step-up transformers are mounted up against the input RCAs at the back



is fixed and is quoted as 184ohm for the 24dB setting and 46ohm for the 30dB [see Lab Report, p61].

As a point of comparison, the +18dB variant extends the cartridge matching range to a quoted 0.3-0.9mV and offers a load of 735ohm. While I have no doubt that these are carefully selected values, I would personally have liked to see some sort of *adjustable* loading facility as this is a very important feature when extracting the best performance from a moving-coil cartridge.

The outside shows high quality input and output socketry and one of the most glorious earthing terminals I have ever encountered, plus small yet solid switches for gain, channel selection and earth lift. One thing that appears to be missing is a power on/off switch but it's actually tucked just under the right hand side of the front panel.

SWATHES OF SOUND

With the Seven GT connected to my Michell Gyro SE turntable, SME 309 tonearm and Ortofon Kontrapunkt B cartridge, I selected the 24dB gain setting for the cartridge's rated 0.47mV output. Using my Naim Supernait amplifier and a pair of GamuT M'inenT M5 loudspeakers I discovered that

patience is not only a virtue but a necessity with the Seven GT. Initial results were pleasant and enjoyable but I was left a little underwhelmed after just a few hours' listening. However, I have to say that, after a good few weeks of continuous operation, the transformation in the Tron's performance was nothing short of astonishing.

It's tempting, when discussing the resurgence of vinyl, to talk about the format's 'warmth', with the underlying implication that it sounds all fluffy, cuddly and generally nice – a bit like grandad's old radiogram that had a 'lovely tone'. To these ears nothing could be further from the truth as I have always found that a good quality vinyl set-up has the power to evoke emotions that are both deep and convincing.

Listening to both new records and well played favourites through the Seven GT was an absolute joy, as the unit has an uncanny ability to present music as it is rarely heard. No matter what I chose to play through it, everything seemed to have increased in scale and taken a giant step forward in dynamics and clarity. In short, I was captivated. The measured

'When the bass drum came in I nearly fell off my chair'

ABOVE: An archetypal 'black box', GT Audio's Tron Seven is lit by a single, red power-on LED. Any glow from the internal valves is hidden

rise in output at higher frequencies undoubtedly helps here, but it is never overbearing and simply serves to ensure that 'warm and woolly' the GT most certainly is not.

Cueing up 'Can't Get You Out Of My Head' from Kylie Minogue's new *Abbey Road Sessions* LP [Parlophone 50999 0 15861] I was absolutely enthralled by the size and depth perspective that the

Tron conferred upon both Ms Minogue herself and also the backing strings, which were gloriously vivid but without any sense of strain or screech. When the bass drum came in, I nearly fell

off my chair as it pounded across my listening room with power and fury. I found myself pondering that surely 1980s chart cheese-meisters aren't supposed to sound like this? Thank goodness for the sonic gurus at Abbey Road, I say. The rest of the album was no less delightful – the Tron's dynamic ebullience taking the experience to a whole new level.

BREATHTAKING

This sense of insight and scale was a recurring phenomenon as I continued listening to the Tron. As it warmed up and hit its stride everything seemed to take on a whole new level of intimacy. Graham Tricker's attention to detail and careful design means that the Seven GT is uncannily free from background noise, with the result that retrieval of fine subtleties within the furthest depths of recordings is absolutely breathtaking.

Playing 'The Awakening Of A Woman' from the Cinematic Orchestra's 2002 album *Man With A Movie Camera* [Ninja Tune ZEN78] my room was filled with a huge swathe of sound – the word ➞

TRON – NOT A DISNEY MOVIE

It may sound like something exotic from science fiction, but Tron Electric is the brainchild of Graham Tricker, the man behind GT Audio. Graham has the background of a craftsman, but not in the way one might expect... His father was actually a Savile Row tailor, whose love of bespoke production and appreciation of quality materials is something that was instilled into Graham from an early age, informing the path he'd follow. Working initially in the telecommunications industry and developing experience with valve-based circuitry, Graham branched out to start both GT Audio – a hi-fi dealership and veritable treasure trove of knowledge for all kinds of vintage audio – and Tron Electric. The latter is a manufacturing entity, specialising in the design and build of high-end valve hi-fi, with all components sourced in the UK. Currently, Tron offers a range of line level and phono preamplifiers, valve power amplifiers based around 300B and 211 valves, and matching interconnect, loudspeaker and mains cables. However, even Graham isn't immune to the march of technology as the Tron website also promises a new DAC, 'coming soon'.

PHONO STAGE



ABOVE: While the internal gain and input loading may be customised, the silk-screening on the rear panel cannot. In our sample the 'MM' and 'MC' settings referred to two levels of MC gain only. The two input and single set of output RCAs are all silver-plated while the earth lift switch will be a useful facility in some systems

'immersive' has never been more apt. Every fine percussion detail was lucidly portrayed and I almost struggled to keep up, as my ears were bombarded with so much musical information.

At the top end, the Seven GT has a captivating purity and articulation. Any half-decent phono stage can reproduce all the instruments as they should sound – a really good unit will render them in correct spatial and atmospheric terms as well. However, it takes a truly exceptional unit to make both of these aspects seem easy and then top off everything with an uncanny sense of realism. The Tron does more than most other designs to fool your ears into thinking that some musical instrument has been brought from a far-flung studio and set before you in your listening room.

KEEPING THINGS CLEAN

One experiment I always like to try is to see what is made of a less than decent pressing. So I brought into play Blue October's *Any Man In America* LP [Up/Down 1101] which, to begin with, seems promisingly well recorded, particularly at the quieter outset of the track 'The Feel Again (Stay)'. Unfortunately, as the rest of the band come in, the performance reaches a somewhat muddily compressed climax, but the Seven GT captivated me once more by offering up a surprisingly well-revealed whole.

Yes, the limitations of the recording were clear but the instruments did not disappear into a confused muddle. Instead, the Tron made the best of a bad job and the result was pleasingly enjoyable. Its even-handedness meant that the musical message

was conveyed with ease, even though the instruments and performers were labouring under some technical difficulty.

The Seven GT's bass was beyond complaint as well. Not only was it astoundingly deep, seemingly almost bottomless, but it was also blessed with a fluency and pace that underpinned more low-end-oriented tracks perfectly. Dub Syndicate's *The Pounding System* [On-U Sound LP18] found its way onto the platter and the double glazing shook with the lowest notes! The GamuT loudspeakers certainly played their part but the Tron gave them the very best source signal with which to work and the whole performance simply had me grinning from ear to ear.

If I may suggest that there's a tiny chink in the Seven GT's glistening armour then this is its slight sensitivity to groove noise – possibly a side effect of its own low noise and the reinforced presence region. If you do treat yourself to a Seven GT, I'd strongly recommend keeping LPs clean, or replacing worn pressings. ☺

HI-FI NEWS VERDICT

In my opinion, the Tron Seven GT phono stage is one of the finest units currently available. Eschewing unnecessary features with superficial appeal has ensured the design only focuses on aspects that really matter, and it shows. The GT combines superb design, magnificent build quality, high quality components and a good dose of Graham Tricker magic to create a veritable vinyl *tour de force*.

Sound Quality: 86%

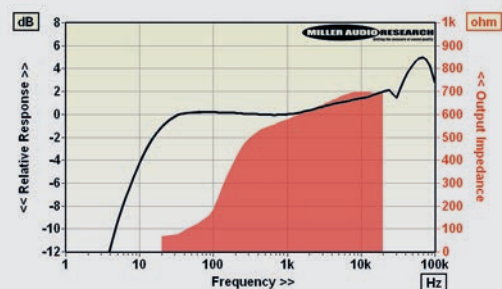


LAB REPORT

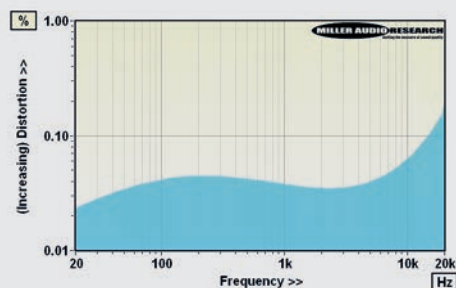
TRON SEVEN PHONO GT

As explained in the caption opposite, the 'MM' and 'MC' settings refer, in our sample, to two high levels of gain intended for low and medium output MC pick-ups. Tron specifies a base level gain of +49dB which is achieved by just three tubes (2x12AX7 and 1x12AU7) either side of a wholly passive RIAA network, with transformer-coupled inputs providing further gain for MCs. The full +72.7dB and +77.0dB gain recorded here is higher than the additional +20dB and +26dB gain (plus the 49dB) specified in Tron's literature, giving the Seven Phono GT an input sensitivity of 0.23mV and 0.14mV, respectively, for 1V output. This confers compatibility with the lowest output MCs without sacrificing the practical S/N ratio – indeed, the A-wtd figures of 75.5dB and 72.0dB, respectively, would be impressive for a high-gain solid-state phono preamp.

Input headroom is inevitably impacted by the combination of high gain and passive equalisation and distortion reaches 1% by 5.9mV (although this still represents a headroom of +28.2dB re. 0.23mV). There's no hard clipping point, however, as THD gradually increases with level, reaching 10% for a 10mV input (at which point the output is 43V!) At outputs up to 3V, distortion is typically <0.06% over the bulk of the audio range [see Graph 2, below]. The response extends to -1dB/20Hz but shows a presence/treble tilt of +1.4dB/10kHz and +2.0dB/20kHz, adding a spring to the step of most MCs [see black trace, Graph 1]. The output impedance is not especially low at ~600ohm. Readers may view a QC Suite test report for the Tron Seven Phono GT phono preamp by navigating to www.hifinews.co.uk and clicking on the red 'Download' button. PM



ABOVE: RIAA corrected frequency response from 1Hz-100kHz shows presence/treble boost. Output impedance (red) increases from bass to midrange



ABOVE: Distortion versus frequency (lower MC gain setting) – within 0.06% up to 10kHz

HI-FI NEWS SPECIFICATIONS

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| Input loading (mid/high gain) | 195ohm / 48ohm |
| Input sensitivity (mid/high gain re. 0dBV) | 233µV / 140µV |
| Input overload (mid/high gain) | 5.9mV / 3.5mV |
| Maximum output (re. 1% THD) | 25.3V (600ohm o/p impedance) |
| A-wtd S/N ratio (mid/high gain) | 75.5dB / 72.0dB |
| Frequency response (20Hz-20kHz) | -1.1dB to +2.0dB |
| Distortion (20Hz-20kHz, re. 0dBV) | 0.027-0.12% |
| Power consumption | 10W |
| Dimensions (WHD) | 455x105x355mm |