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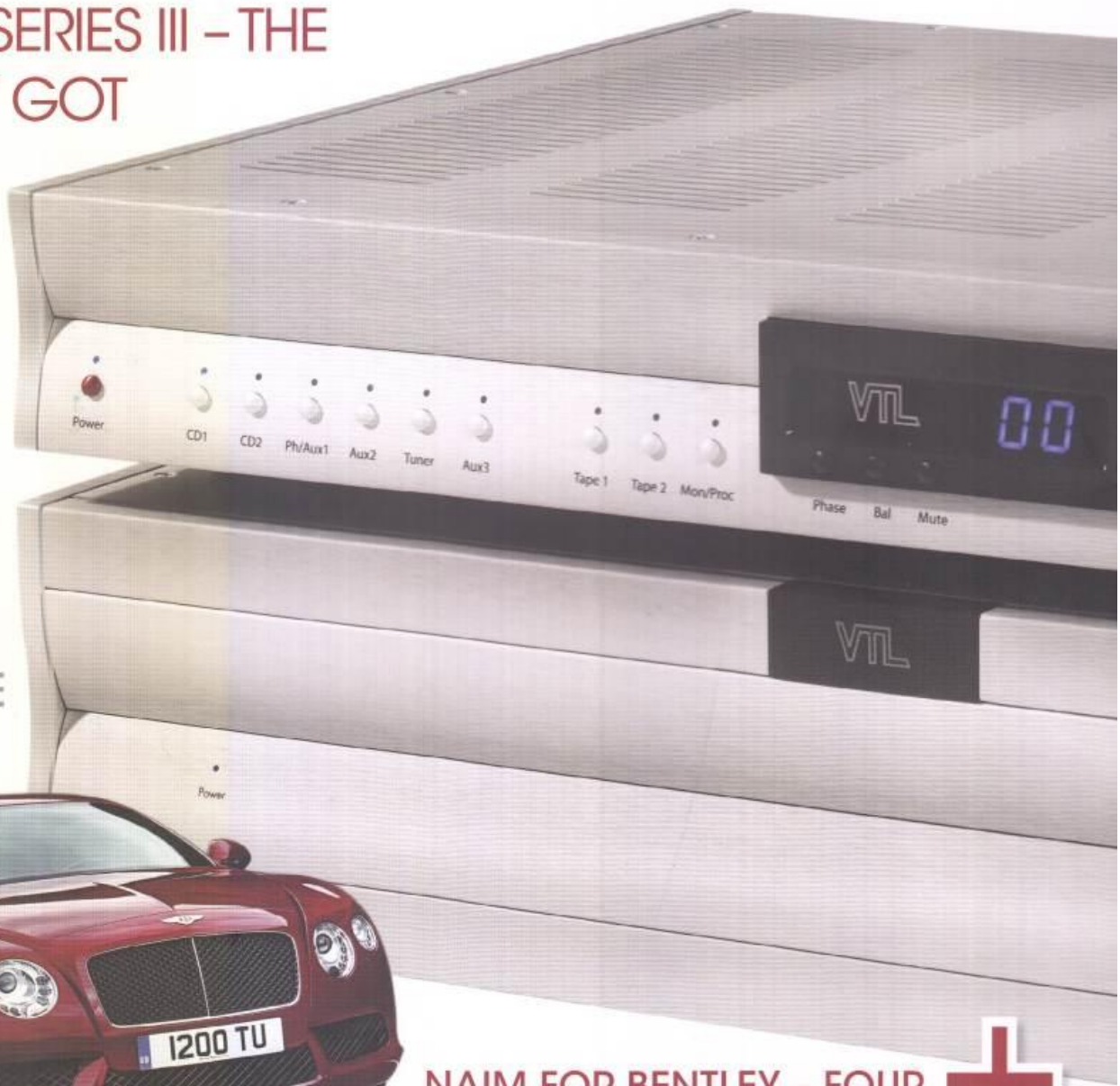
# PERFECT PREAMP

VTL'S 7.5 SERIES III – THE  
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# The VTL TL7.5 Series III Line-stage (and MB450 Series III mono-blocs)

By Roy Gregory

**W**hen the VTL TL7.5 first appeared, way back in 2002, it marked a serious watershed in the evolution of valve electronics. For so long the poor and far from pretty relation of sleeker, more stylish solid-state electronics, the arrival of the 7.5 banished the oversized casework and perforated bent metal chassis aesthetic. In fact, it was externally indistinguishable from the solid-state competition. More importantly, it was operationally indistinguishable too, with a practicality and versatility that equaled the best; an elegant, twin-chassis package that oozed class.

Ten years on and the market for valve electronics has evolved – and so too has the 7.5, reaching Series III status. The competition has split, some playing catch up and trying to clean up their acts, others filing the contest under “too hard” and reverting to the retro path. Where does that leave the VTL? Still firmly atop the aesthetic and functional tree. The Series III is externally identical to the Series I and functionally identical too, aside from an internal switch that alters overall gain, testament to the clarity of form and purpose embodied in the original design. What have changed are important elements within the circuit itself, but to appreciate that evolution it's necessary to start with the original overall concept.

The TL7.5 should really be considered a hybrid design. It uses a two-box chassis, separating the audio signal path from the noisy power supplies and control/switching circuitry. The circuit in the VTL is fully complementary, with a single 12AU7 per channel being used for voltage gain, direct coupled to a FET-based buffer that supplies the necessary current. It's an arrangement that uses each technology for its strengths. Likewise, the substantial power supply was built around solid-state MOSFET regulation in a series-pass topology, avoiding the current limiting and lifespan issues that impact on the performance of tube-regulated supplies. The audio circuit was a model of simplicity, with very low global-feedback and using a single resistor ladder to provide both volume and balance control.

So, what's new? Let's start with the power supply. Experiments with a tube regulated supply yielded superior sonic results, but VTL were reluctant to rely on valves in this critical application. Examining the reasons for the superiority of the tube supply, they were able to develop a new, shunt-regulated MOSFET design that delivered better dynamics and signal performance than either the original MOSFET topology or the tube power supply.

The tube gain-stage was re-engineered for greater linearity, which allowed the elimination complete of global feedback, while the output buffer was also redesigned around new J-FET-like devices sourced from green technologies,



offering a more valve-like behavior coupled to greater extension, resolution and linearity. Finally, the bypass capacitors used throughout the circuit were completely reassessed. Currently fashionable Teflons were found to work well in the power supply, delivering excellent detail and resolution, but in the critical audio circuit, Polypropylene was preferred for its natural, unexaggerated balance. Roll these changes together and sonically, the TL7.5, whilst still recognizably the same animal, has taken a serious step forward in sonic and, more importantly, musical terms. I've been fortunate enough to have a 7.5 Series III in residence for quite a while, in conjunction with the MB450 Series III mono-blocs reviewed back in issue 88. In that

time it has become the go-to pre-amp in a whole range of reviews, reflecting both its sheer versatility and tractable nature: there's nothing you can't connect to the 7.5, and nothing you can't connect it to, given its full range of both single-ended and balanced inputs and outputs, combined with its capability to really drive long cables and handle wildly different input levels and system sensitivities. Four inputs can be switched from single-ended to balanced configuration, with two more and two tape loops operating in single-ended only. Input sensitivity can be individually trimmed to accommodate different source components and system phase can be reversed.

But what has made the VTL TL7.5 genuinely universal is its sheer invisibility. Once it's in the system, it simply gets on with the job. It's not that it doesn't have a character, it's more that you simply don't notice it. This is the Holy Grail of audio performance, and few components in my experience (and even fewer line-stages) perform this trick quite as well as the 7.5. The few that do are the keepers – the products that will stay in your system for a long, long time – something that's further underlined by the fact that VTL will upgrade any 7.5 to current status, a step that's well-worthwhile. ▶



## EQUIPMENT REVIEW / THE VTL TL7.5 SERIES



▶ What is it, in musical terms, which makes the TL7.5 such a significant advance over its predecessor? I can best describe it as a more concentrated performer. Whilst the character of any audio component can be broken down, discussed in terms of traditional audio categories, like transparency, dynamics and separation; and whilst all too often that dismantling of the audio performance mirrors similar disconnections perpetrated upon the musical performance, in the case of the TL7.5 the sound is so coherent and so holistic that it only really makes sense to consider the way these aspects combine or alloy to create the overall impression. Hence the term "concentrated"; by which I mean that there is a greater sense of centered presence and energy, a greater sense of physicality to each instrument. But it is not just about holding things closer, it's also about holding them more stable. So the thing about the VTL is the way it locates an instrument, almost physically, within the soundstage and then keeps it there. What you don't notice is the sheer stability of the event. You don't notice that instruments don't move with level or pitch. Whole sections of the orchestra don't clamber forward into an undignified central scrum every time there's a crescendo, individual voices or instruments don't waver languidly within the mix. This absence of movement passes unnoticed, simply because you only become aware when things do move, when that movement destroys the spatial illusion, when instruments start to migrate and draw attention back to the speakers.

The other thing that happens as natural result of this grounded, concentrated presentation, is that there's a greater differentiation of what is instrument and what isn't – which in turn creates a greater sense of energy, of sheer musical power when the recording demands it. I've used the 450 Series III mono-blocks with a considerable range of driving pre-amps, but combine them with the TL7.5 Series III and the sudden surge of power is almost like you turbo charged the amps. This sense of unfettered musical impact is founded on the absolute integrity of the signal they're being fed. This almost physical sense of presence might not match the micro-dynamic textures available

from the highest resolution devices, but this is a different kind of resolve – one that won't brook any dilution or dismantling of the musical message in search of mere detail.

But don't get the idea that the TL7.5 Series III is just about BIG and LOUD. So much of being truly invisible in the system is about getting out of the way, about allowing the expressive, fluid qualities in the playing to shine through, the emotion in a vocal, the way that two, or three, or four instruments combine and play off of each other. Of course, that doesn't mean it can't be loud too...

Play Elvis Costello's 'Little Triggers' and there's a centered impact to each drum beat, a tactile shape and momentum to the bass line, working together to underpin and reinforce the beautifully modulated and restrained vocal line. There's a sheer substance to the sound that matches the power, purpose and attitude in the performance that real brings that bitter mix of sadness and anger alive. Likewise, the open air recording, the massed voices that open Peter Gabriel's 'Biko' are spread wide in a massive, open space. This is people power plain and simple, the depth of the emotion, the sense of collective grief (and hope) heightened by the individual voices.

It's a powerful statement of musical intent that is matched by the entry of the deep, pulsing bass note, a beat that is tight and solid, with edges, a pitch and a separate space all of its own. As the music builds, layer on layer, the 7.5 holds the two acoustics, the two musical worlds separate and distinct, never allowing that powerful bass to spread, bleed or obscure the crowd of voices. It might seem a small thing but its adds real power and impact, a whole new dimension of distance, of contrast between those inside and those outside the events. Gabriel could have mixed the song as a straight studio track, but it works so much better this way. The beauty of the 7.5 is that it tells you that – and why that is.

## TECHNICAL SPECIFICATIONS

**Type:** Tube-based fully complementary line-stage

**Tube Complement:** 2x 12AU7

**Inputs:** 4 pairs balanced/XLR or RCA single-ended. 4 pairs single-ended/RCA

**Input Impedance:** 50kOhms (20kOhms min)

**Outputs:** 2 pairs balanced XLR, 2 pairs single-ended RCA, 2 pairs single-ended RCA buffered Tape Out

**Gain:** <20dB

**Output Impedance:** 25 Ohms (150 Ohms max)

**Dimensions (WxDxH):** Control Chassis – 445 x 445 x 102 mm, Audio Chassis – 445 x 445 x 153 mm

**Weight:** 34kg (packed)

**Price:** £19,995

**Manufacturer:** VTL

**URL:** [www.vtl.com](http://www.vtl.com)

**UK Distributor:** Kog Audio

**URL:** [www.kogaudio.com](http://www.kogaudio.com)

**Tel:** +44 (0)24 7722 0650

*(For full details of the MB450 Series III, please see Issue 88)*

By allowing each voice or instrument in a recording its own space, its own existence, but by also preserving the relationship between the pieces and players, the TL7.5 brings the core of the music right to the surface, imbuing performances with a feeling of purpose and intent that heightens their power to move and immerse the listener.

This ability to both separate and yet bind the music's elements together is an awfully neat trick if you can pull it off, and in this musically vital respect the combination of 7.5 and MB450 is blessed indeed. In no small part that is down to the ability of the line-stage to meet the demands of any input, the power-amp to not just drive any speaker, but also adjust its damping factor to optimise the coupling. But as good as the 450 is – and it's a mightily impressive beast – there's no escaping the fact that it takes a whole step up in terms of power, impact and sheer musical authority when driven by the 7.5 Series III. With power available to handle any musical programme, the grip to hold things steady and the confidence to let them breathe, these Series III VTL products aren't just better than their predecessors, they represent a step up in audio terms but a step change in musical communication, especially when used together. If you want the music AND the message, and you want it right there right now, then the TL7.5 Series III is a great place to start, the MB450 Series IIIs the perfect partners. Costly to purchase and demanding to house they may be, but these electronics will deliver the warm, beating heart of a truly great system; for once, value really isn't an issue. +

