

## EQUIPMENT REVIEW

# VTL MB-450 Series III Signature mono amps

By Roy Gregory  
Photography by Simon Marsh

**V**TL's new MB-450 Series III mono power amps make owning valves easier than ever before. Here is a genuinely powerful amplifier that biases itself, monitors itself, protects itself and given half a chance, would probably feed itself too. No meters required; no matched sets of tubes; no special skills or training; no sacrificial components. If an output tube goes bad you simply get a blinking LED. Which LED blinks and how fast tells you what's wrong and what you need to do – which in the worst case scenario is pull the indicated tube and plug in a replacement: Power up, wait while the amp goes through its self check and bias procedure and you'll be ready to go\*.

Of course, there's more to making tubes user-friendly than making them reliable and self-serviceable. A fully enclosed chassis keeps the glassware away from pets and little fingers, while hatches in the top mean that you don't need to dismantle or even move the amps to reach the tubes if or when necessary. Unlike the flagship Seigfried monos (and S400 stereo) the 450s offer a more conventional, flat chassis, but the subtly sculpted fascia, derived from the 'chimney stack' casework of the range-topping designs, gives them a genuinely classy, contemporary appearance. However, they are undeniably heavy, and the lion's share of the weight sits at the back of the chassis.

Any 450 Watt amp should be powerful, but sounding powerful is another thing altogether. The VTLs reproduce music with the sort of substance and solidity that escapes almost all but the very best amplifiers. They also do so with an absolute authority of the kind that leaves you in absolutely no doubt that no matter how large that drum, and how hard it's hit, they'll effortlessly encompass the dynamic demand. The result is a sense of actual presence, of real people and real instruments that's rare indeed. But what's really impressive is that this presence extends well into both frequency extremes and remains consistent regardless of scale. This is what makes them so engaging. How they do it demonstrates exactly what they add to the performance of their less powerful brethren.

Familiar material, like Neil Young's *Sleeps With Angels* shows just how effectively the 450s set about their task, revealing new insights and new facets to the music. On 'Safeway Cart' Young's voice is front and centre, the rock-solid backing arrayed behind him in a beautifully layered soundstage. The VTLs unravel the multi-tracked nature of the recording, but they do it without dismantling it at the same time. The band is full of presence with an easy, almost loping stride, and Young's vocals are clear, natural and intelligible, and his guitar is just there, larger than life, out front, but subtle and full of shape and detail. The attack on the notes is just so, the sustain perfectly separated and preserved, the duration of each note incredibly clear. It creates a sense of intimacy, almost delicacy, that sets up a stark contrast with that powerful backing, the contrast that makes this song so effective; the fragile against the inevitable. This is a song I've always loved, and what the 450s do is underline its power.

Perhaps the most pertinent example of this was the tube change that occurred half way through the listening period. Swapping the sixteen 6550s that arrived in the amps for a complete set of KT88s took all of 20 minutes, most of which was spent letting the original valves cool down enough to handle safely. That's power-down all the way to up and running. It's also a job I wouldn't even contemplate on most of the amps I've owned over the years!

Equally impressive is the contrast between this track and the also brilliant but very different 'Trans-Am', with its less obviously structured and more band orientated layout. Shape and phrasing are just as clear, the relationship between the instruments, lead and backing vocals. But here the sense of scale, of small and large, of man and the vastness of America calls for a different presentation. Again, the 450s deliver on cue, with cavernous reverb around Young's superb guitar break.

Given the comments above the next observation might come as a bit of a surprise. In discussing what the 450s don't do, top of the list would be resolution and transparency. They're not bad in either regard, but there are amps out there that do better than them. But the reason that this isn't a deal breaker is that the VTLs do so much more with the detail and space they do produce that they are actually more musically effective than many apparently cleaner, crisper and more detailed competitors. Which just goes to prove that it's not what you've got but what you do with it that matters. In the case of the 450s, they'll generate huge space and depth where required (and appropriate), and that space will be both palpable and coherent. They don't define soundstage boundaries as clearly as some, but the space they create makes sense; you can tell what's happening, where and when – and more clearly than you can with many a more explicit amp. If you want realistic perspectives peopled by players making music that actually makes sense, the 450s could be just the ticket.

It's this ability to tie the subtleties of time and texture to the solid substance and sheer power of which they're capable that makes the 450s so special. At the same time as they keep the small and the frankly massive in easy coexistence, they also keep things lucid and articulate. Chamber works, particularly the smaller and more jagged variety wouldn't normally be the natural forte for an amp like this, one with this much



power constantly on tap. Yet, once again, playing the Julian Bream Consort's recording of Britten's 'Courtly Dances' from Gloriana, the VTLs surprise and delight. These modern compositions are based on Elizabethan themes and fragments. The 450s don't just bring a real sense of body to these half dozen instruments, giving each a richness of harmonic character, a depth of colour that brings extraordinary presence and vibrance to the performance, they effortlessly decode this musical alloy, separating the authentically Elizabethan elements from the modern

bifilar wound and fully balanced. As before, small soft-touch buttons on the front-panel allow you to switch from stand by to full power, to mute the amp and also to switch from tetrode to triode output mode. The latter delivers 200 Watts into 8 Ohms but to these ears it sacrifices the authority and musical coherence that make the 450s special. (If your system sounds better with these amps switched to triode output, I'm sorry, but you've probably got some work to do elsewhere in the set up.) Last, but by no means least, owners of the Mk II version can have their amps upgraded. Having heard both, I wouldn't hesitate if I were you...

As well as the natural ability to drive pretty much any loudspeaker that goes hand in hand with a 450 Watt output arriving via a decent transformer, the VTLs also offer a variable damping factor (whose operation is described in more detail in the sidebar). Assuming that amps like these are likely to partner large and

finery in which they're dressed. And again, far from detracting from the music, it actually reveals another layer in the structure, another level of sense in the performance.

As well as the highly sophisticated circuitry that sets and monitors the individually bias and screen voltages throughout the amp, the Mk III version of this long-running design adds several other significant features. The input and driver stages are now fully differential. The single-ended inputs get their own, J-fet derived current source, meaning that the audio circuits can run in balanced mode irrespective of the type of input. The revised circuit uses a shorter, faster feedback loop, whilst eliminating global feedback entirely, yet the amp remains unconditionally stable without any form of capacitive compensation. And talking of eliminating capacitors, all those in the signal path are now Mundorf silver-in-oil types, while the reservoir caps have been bypassed with film caps. Last and by no means least, the output transformers have been totally redesigned and are now heavily interleaved,

## CHANGES AND CHOICES...

As well as VTLs sophisticated auto-bias and tube monitoring circuitry, the Series III Signature incarnation of the 450 also offers the user a variable damping factor facility. Each

amp offers a pair of toggle switches, mounted beneath the chassis cover, between the valve banks, allowing the selection of four different damping factors, ranging from Low through to Very High. This is all about matching the amp to the speaker and listening environment – once set it should be left well alone. In effect, these switches alter the output impedance of the amplifier (by varying the amount of negative feedback) and the grip it exerts over the speaker. And grip they do. Set the damping to Very High and the 450s exert a vice like hold over the speakers, a level of control that would be the envy of many a solid-state device. The cost, just like so many of those big solid-state amps, is rather more than a hint of dryness. Back off by stages on the damping and the sound blossoms and opens out, becoming freer and more fluid. What the four-position control allows you is the luxury of selecting exactly where you want, or need, to be on that continuum, opening up the possibility to compensate for speakers or rooms that are too dry, rather too loose or bass that gets a bit enthusiastic.

The other big decision facing 450 owners is the choice of output tubes. The amp can be shipped with either Electro Harmonix 6550C or Tungsol Gold Lion KT88 glassware. But while the tubes might be interchangeable, their sound is not and materially affects the sonic character of the amplifier. The 6550C delivers a full, warm, weighty sound with tremendous drive and solidity. They seem to forcibly propel the music into the room, delivering a big, bold sound with tremendous impact and power. In contrast, the KT88s deliver a more delicate, refined and articulate sound, with greater transparency, air and space. They make music and playing more agile, delivering greater texture and a more natural sense of shape.

So, on a track like Shawn Colvin's 'Shotgun Down The Avalanche' the 6550s provide plenty of low-frequency foundation and drive, really driving the track along. Plug in the KT88s and you'll discover two things: one, that you need to advance the volume control a couple of notches to match the apparent power of the 6550s and two, that once you do so the bottom-end takes on its familiar, undulating shape.

Likewise, play Kleiber's Beethoven 7th Symphony, the sublime opening of the second movement, and the contrast between the two tube sets is just as stark.

The differences here are real and significant. If experience suggests that moving the system in either direction might be worthwhile, it's worth serious consideration.

▶ demanding loudspeakers, easily able to stress the listening environment, this offers a welcome and worthwhile degree of additional fine-tuning when it comes to getting control of your system and in particular, its bottom end.

Which brings us to the 450s' other surprising strength, their natural sense of musical flow and articulation. Again, this is not something one normally expects from really powerful amps, the way you don't expect fast feet and delicate handling from front-row forwards. Yet the lucid, unobstructive ease with which the VTLs let music find its own pace, structure and phrasing repeatedly surprises and beguiles, although you'll need to choose your pre-amp with care.

Get it right and the amps will simply step away from the system, leaving the music just as fleet of foot as it needs to be. So Britten's angular rhythmic jolts present no challenge, in the same way that Vivaldi's Concerto For Lute And Strings is all crisp precision and perfectly pitched phrases. The quick articulate playing of the lute is perfectly placed against the longer notes of the Bass Viol, its delicacy in the largo a perfectly plucked counterpoint to the bowed notes of the larger instrument. Move up in scale and the amps are just as comfortable, so perhaps it's time to surrender to the inevitable and, finally, big it up...

Berglund's Sibelius symphonic cycle on EMI is one of the great recordings from this massive catalogue. Selecting the Second Symphony, a master class in contained musical power and its measured release, it was time to let the VTLs loose on what could be considered their favoured terrain.



▶ The subtle, swelling of the opening bars reveals a broad and deep acoustic space. The instrumental groupings of the Bournemouth Symphony are nicely placed with a natural perspective and no exaggeration of height. Depth is good, with a discernable rear wall; width and overall height are less clearly delineated. But what really strikes you is the effortless sense of power, allied to a clear sense of musical direction. Berglund gives us

## TECHNICAL SPECIFICATIONS

**Type:** Tetrode-coupled valve mono-bloc

**Valve Complement (each):** 1x 12AT7; 1x 12BH7; 8x 6550C or KT88

**Inputs:** 1x XLR; 1x RCA

**Input Sensitivity:** 2.0V for full output

**Input Impedance:** 42 kOhms

**Outputs:** 1pr 5-way binding posts

**Optimum Load Range:** 4 – 8 Ohms

**Rated Output:** 425 Watts (Tetrode); 200 Watts (Triode)

**Dimensions (WxHxD):** 480 x 230 x 460mm

**Weight:** 42kg ea.

**Finishes:** Black or silver front panel; Black chassis

**Price:** £17,500 per pair

**Manufactured by:** VTL Amplifiers Inc.

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

**Manufactured by:** Kog Audio

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

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



## PERFECT PARTNERS...

For some, though sadly not all, of the review period, I also had the latest version of the VTL 6.5 pre-amp on hand. This one-box sibling of the established and highly-respected 7.5 looks on paper to be the 450s' natural partner, and so it proved in practice. Used in tandem, the VTL combination simply seemed to let the amps do their thing. Together they possess such an uninhibited sense of form and flow that whether it's the line-stage feeding the amps what they want or simply getting out of the way and acceding to their demands quickly ceases to matter. Once again we have evidence that – in terms of the price/performance equation at any rate – that the virtues of the pairing are significantly greater than the sum of the parts. I'll revisit the 6.5 at a later date, but for now let's just say that anybody listening to the 450s should make the effort to also hear them fed by the 6.5. This versatile and capable performer provides all the facilities and sophistication that we've come to expect in these days of multi-room, multi-source installations. It also offers exceptionally engaging musical results in a user friendly, single-box design. That makes it nearly as unusual as the 450s it partners so enthusiastically!

a reading with a real sense of purpose and that's just what the 450s deliver; there's never any doubt where this performance is going. The VTLs keep everything pointing the same way, binding all the threads together, building and building them as Berglund demonstrates his mastery over both the score and the forces beneath his baton. Just when you think that the music can't get any more intense, he releases the pressure in a long, long slide before ramping it up once again into one of the great orchestral climaxes.

What's so impressive here is not just the easy way in which the 450s scale the dynamic demands of this powerful performance, but the absolute stability within the soundstage. Throughout, the drums are planted, clearly defined both in terms of weight and also texture, the brass never climbs forward even in the most enthusiastic tutti. It's an oft overlooked quality in a system, but one that's central to maintaining the illusion of a live performance. Playing Berglund's Sibelius Two on the VTLs is a musical tour de force.

Most of the really memorable audio products that have passed through my hands have at least one quality that sets them apart, and VTL's 450 mono-blocs are no different in that respect. In this case it's the way they fasten on and reveal the nature of the music and the recording. Not what's being played, or even how – but why.

In an ideal world I'd want more detail, I'd want more micro-dynamic definition and greater clarity of the spaces around and between the instruments and players. But this isn't an ideal world and the question is, just what would you be prepared to sacrifice in order to achieve those gains? In the case of the VTL 450s that's a hard one to answer and after considerable thought I'd take them just the way they are. Here is the pot of gold at the end of this particular rainbow – the high-powered valve amp that you can live with AND love. So much music, so few flaws and none of them intrusive, this is an amp that's finally come of age: More than that, it's one for the ages. +