



Line Magnetic 518A

If you're an *AV Magazine* regular, you'll already have a fair idea of who and what Line Magnetic is. The Chinese high-end marque specialises in tube-based gear – integrated amps, pre-amps and power amps, with a CD player and a DAC also part of the line-up these days.

Line Magnetic's origins are in the restoration and recreation of vintage and exotic tube components, with Western Electric the brand most often quoted. But components like the LM-211A integrated amp reviewed in the July issue, and the larger, SET-based LM-518A under scrutiny here, are very much Line Magnetic originals.

For those (like me) who aren't tube experts, it's worth taking a closer look at the pair of SETs (for single-ended triode) used in the 518A's output stage. The 845s

are directly heated triodes, as opposed to the more commonly used EL34s, which are indirectly heated.

To get even more technical: indirectly heated valves such as the EL34 use a cathode that is heated by a separate filament in order for it to emit electrons. The 845, however, is a directly heated triode, which means the heated filament also acts as the cathode.

The 845's original application was in beefy military radio transmitters, and it's a big, hot tube that uses a thoriated tungsten filament. In Class A applications, as is the case here, the filament reaches temperatures in excess of 1 700 deg C. So it's a rather different animal compared to the mild-mannered EL34 at the heart of the many of those easy-going, warm and fuzzy tube amps.

In fact, I'd wager good money that the

LM-518A would be mistaken for a solid state amp – and a good one at that – in a blind listening test.

But I'm getting ahead of myself here. First, let's take a closer look at the physical properties of this integrated amp. Unpacking it, the first thing you'll realise about the LM-518A is that it's heavy for its comparatively modest dimensions. At 32 kg or so, it's a handful to lift out of the cardboard box and onto an audio stand.

Once positioned, you can take a closer look at the details: the deep gold anodised faceplate has a pair of large, round rotary controllers on the right, an illuminated amp meter in the centre, and a power switch on the right.

The controllers look after volume level and source selection respectively, while the amp meter is used to check the bias



setting of the output tubes. Recessed screws allow bias adjustment and matching, while a second set of screws can be used to reduce hum, if required.

A tube cage is provided to protect the valves from prying fingers (if you have little ones in the house), but those valves really deserve to remain exposed, as they provide a visual feast that is the perfect accompaniment to the 518A's sonic splendour. Those 845s burn brightly indeed ...

The valves are symmetrically arranged on the top plate, with the big 845s taking pride of place, on either side, and the slightly smaller 6L6EH driver tubes set a little further back, and between them. Up front, the single 5AR4 rectifier tube shares its space with a pair of 12AX7 input valves.

Behind them, three large metal housings provide a home to a massive power transformer, and a pair of equally sturdy power supplies, one for each channel. And yes, as you will have guessed by now, the 518A features a fully symmetrical circuit design, even though it relies on single-ended RCA inputs only.

Which brings me to perhaps the only real criticism I have of the LM-518A – you're not going to buy this amp if you want a lot of facilities and features.

There are only three stereo RCA input sets, while a pre-input sets allows the amp to be used a dedicated power amp, linked to a separate pre-amp – perhaps a way to extend the input and facilities set, but hardly ideal.

The rest of the rear panel offers three sets of speaker binding posts, with choices of 4 ohms, 8 ohms and 16 ohms respectively. There's An IEC kettle-type power socket with an integrated protection fuse completes the picture.

Under the skin, the LM-518A confirms its makers' commitment to quality: the hard-wired circuit boards employ discrete, top-notch components, including N-Cap coupling capacitors, while the volume control is an ALPS potentiometer in the interests of fine adjustment and signal integrity.

The LM-518A comes with a chunky, all-metal remote control offering volume

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control and mute functions only. In fact, chunky is a good way to describe the entire execution of this amp: it's not pretty in the conventional sense of the word, but it feels solid and robust in a way that suggests exceptional longevity.

The review unit spent extended periods in two very different systems, but this write-up focuses on a pairing with my reference Vivid Audio V1.5 speakers, with the source signal supplied mainly via a PS Audio DirectStream DAC with Bridge II network interface. The PS Audio drew its source material from a Synology NAS while Roon music software running on a Mac Mini, and a Lumin D1 network player, were also used.

For an analogue counterpoint, I listened to the Line Magnetic fed by my Diva II SP deck via a Sutherland 20/20 phono stage.

VITAL STATS

Power output	2x 22 watts RMS
Frequency response	10 Hz – 15 kHz (-1,5 dB)
Signal-to-noise ratio	87 dB
Input impedance	100 kOhms
Input tubes	2x 12AX7 input tubes 2x 6L6EH driver tubes, 1x 5AR4 rectifier tube
Output tubes	2x 845 SET output tubes
Inputs	3x stereo RCA, 1x stereo pre-amp in
Outputs	3x speaker binding post sets (4/8/16 ohm selectable)
Dimensions (WxHxD)	430 x 400 x 430 mm
Weight	32,5 kg

Price R73 000

Verdict

Quite astonishing drive, energy and verve from this SET valve amplifier. Always sounds wholesome and authoritative – and the only warm (make that hot) glow is from the tubes! Seamless, swift and utterly enthralling.

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OUR RATING: 87 / 100





I started off with an old favourite rediscovered: Leonard Cohen's almost cinematic *I'm Your Man* (44,1/16 WAV). With the Line Magnetic in command, the sound had a powerful sense of accessibility, of inviting the listener to emotionally and emotively participate in the music.

Like its smaller stablemate, the amp's real appeal lies in its ability to focus closely on an almost magical musicality that seems so real that there is no sense of listening to anything electronic. It provided access to the source signal's rich harvest of detail, and delivered the music with real momentum and with powerful dynamics.

Vitality, however, the sound was presented with an integrity that never invited analysis of individual aspects, but simply filled the room with a performance that was believable and utterly riveting.

Where the LM-518A differs from its smaller stablemate is in the sheer speed and dynamics of its delivery. There is nothing soft or rolled-off about this sound – nothing



Software

- Leonard Cohen – I'm Your Man (Columbia 44,1/16 WAV)*
- Leonard Cohen – Popular Problems (Columbia LP)*
- Melody Gardot – My One And Only Thrill (Universal 44,1/16 WAV)*
- Anne-Sophie Mutter – Carmen Fantasie (DG 96/24 FLAC)*
- Beethoven – Symphony No. 3 Gunter Wand/NDR Symphony Orchestra (RCA Victor SACD)*

Associated Equipment

- Esoteric Audio UX-3 SE universal deck*
- Avid Diva II SP/SME 309/Van Den Hul The Frog*
- Sutherland 20/20 phono stage*
- PS Audio DirectStream DAC + Bridge II*
- Lumin D1/L1 network player/library*
- Macintosh Mini*
- Synology NAS*
- Roon Playback Software*
- Naim Uniti2 integrated amp/streamer*
- Vivid Audio V1.5 loudspeakers*
- TelluriumQ cabling*

sweetly benign or demure.

Instead, the music was delivered with real slam, urge and intent. The LM-518A sounded as quick and impactful as anything I've heard on the solid state front. It displayed a real penchant for grip and control, but never overpowered the music. Instead it used its pace and thrust to recreate vital flow and impetus, allowing the music to be portrayed with effortless ease and ample headroom.

No wonder then that the amp made the most of the full, wide recordings that make listening to this Cohen set so captivating. It really made the bold and sassy sax at the start of the track come alive, and easily kept up with the swirling synths and the punchy, articulate bass on 'Cure For Love'. The huge, panoramic soundstage created a sense of walk-in space and dimension that made the listening space sound bigger and more immersive than I was used to.

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I swapped vinyl for another Cohen favourite, the much more recent *Popular Problems*, which offers an almost eerily lucid view of the bard's gravelly vocals.

'My Oh My' can easily run away with a system, for all its apparent simplicity. The powerful vocals reach almost impossibly deep, the brass is bright and bold, and the female backing vocals sweep across the three-dimensional soundstage.

The LM-518A endowed the punchy drumwork with just the right slam and impetus, and endowed the rich registers of the piano with presence and an almost tactile timbre. Even the deepest layers of the music were easily opened up for the perusal and appreciation of the listener, while Cohen's vocals always commanded the spotlight, but never at the expense of nuance or detail.

On Melody Gardot's 'My Heart Is As Black As Night', off her compelling *My One And Only Thrill* set, the artist's tender, almost fragile but also commanding vocals were intimately presented against the bluesy,

bustling backdrop of the band.

The brass was allowed to swing gently through the melody, with even the light touch of the brushes on the snare keeping lucidly, believably presented time, while the B3 organ added an almost viscous, palpable intensity.

On 'Les Etoile', Gardot's vocals sounded sexy, juxtaposed against the mournful acoustic bass, and the simple but articulate box percussion. The Line Magnetic found just the right balance between agility and tenderness, capturing the spring in the music's step, but never losing sight of its emotive intensity.

Talking of intensity, Anne-Sophie Mutter's violin on the quite marvellous *Carmen Fantasie* (DG FLAC) sounded viscerally alive. Mutter's almost showy brilliance was portrayed with a truthful intensity that allowed the instrument to soar and enchant.

The amp gave the music sufficient scope and space to become a living, breathing thing of beauty, with Mutter extracting from it a combination of passion and melody

that was spellbinding. The orchestra was never allowed to intrude, but provided the sweeping vistas and sonic landscapes on which the violin embroidered its finely filigreed melody.

There was an inherent power, an authority and control in the way the Line Magnetic treated the music that allowed music to be timed to impeccable perfection, while portraying the full tonal breadth and impact of the orchestra. Indeed, the LM-518A wasn't at all intimidated by scale or dimension – it simply delivered its musical wares with truthfulness and conviction.

Asked to portray the beauty and the majesty of Beethoven's *Symphony No. 3*, performed lucidly and eloquently by the NDR Symphony Orchestra under Günter Wand's baton, the Line Magnetic again reached right into the very depth of the music, both tonally and emotively.

It achieved a richness of tone that added substance and musical truthfulness to the cellos and double basses, but never robbed the music of its delightful lightness and agility. The strings displayed a sweetness that was never allowed to turn syrupy, instead sweeping across the soundstage with fleet-footed vivacity.

Pace here equated to precision, but always to the benefit of the music, which sounded soulful and emotively charged. The amp's talent for generous scale and dimensions meant that it filled the room with a rich, vibrant sound that seemed untethered from the electronics, to the extent that it flowed with an unfettered ease.

The Line Magnetic 518A is unlike any tube-driven amplifier I've heard. Its talent for a fast, powerful presentation and its broad dynamic scope result in an intensity and an energy that ensure thrilling listening. But at the same time, the tonal breadth, the attention to nuance and scale, and the almost organic substance of the music, make for a truthfulness that is addictive.

Deon Schoeman