



EQUIPMENT REVIEW

theLARS integrated amp

by Paul Messenger

This extraordinary amplifier is unique, and in a number of different respects. I guess there are more expensive amplifiers than this £71,300 two-boxer out there, but they haven't come my way yet, and they probably pack a bit more punch than the 20+20W (1% THD) rated output of this Swedish valve amp.

The two-box theLars might look like a pair of mono power amps, but in fact it's an integrated amplifier, albeit with a uniquely unconventional configuration. It's also uniquely beautiful, to these eyes at least, thanks to styling and packaging that's utterly different from anything else around.

Where it comes from, whether it's entirely practical, and quite what sort of consumer it's aimed at are the three key questions that require answering before getting down to what it actually does.

The last question is of course the easy one: theLars is clearly only for the very wealthy, and since there's no iPod connection, it's more likely to appeal to the surviving bankers and hedge fund managers than professional footballers. I still

find it hard to understand how any amplifier can cost more than twice my annual income, even if it is using the finest quality ingredients. But then I've never really understood the pricing of high end hi-fi equipment in general: usually the only justification seems to be you're paying for the sound that comes out, which I suppose is some sort of justification in an era where increasing numbers of people have far more disposable income than they actually need. At least a seriously expensive piece of hi-fi equipment will usually give lasting pleasure for many years to come, with rather lower maintenance costs than a yacht or a supercar.

It's really no surprise to find that an amplifier called theLars comes from Scandinavia, or more specifically Sweden. It's the creation of an experienced electrical/electronics engineer called Lars Engstrom, ▶

who spent his normal working life in radio communications and solving complex problems like allowing electric trains to operate across the bridge that now links Denmark and Sweden. Radio and audio have always been a personal passion, and his collection of restored old radio sets, and enthusiasm for thermionic devices in general provided the inspiration behind the distinctive (and distinctively named) theLars amplifier.

Because it's such a curious beast in nearly every respect, the practicality won't suit every user. Finding somewhere to put the two units is the first problem, because they're such an unconventional shape and size. Each unit has a 25cm square footprint, which grows to 30cm if the chunky acrylic (Perspex) covers are used, so locating a pair on a single shelf is tricky-going-on-impossible. And a total height (including the acrylic) of 50cm means it's definitely on the top shelf (or the floor!).

Although this amplifier integrates pre- and power sections, it does so in a very unconventional way. Just one of the units has a single (dual-concentric) knob that both selects the input and adjusts the volume, but both amplifiers have matching input and output sockets. The two units are then linked by a 2m multi-pin Burndy-type cable which carries selection and volume settings and adjustments from the 'master' to the 'slave' unit.

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Features and facilities are decidedly Spartan – too much so for some people I reckon. There's no remote control facility whatsoever – a regrettable and largely inexcusable but all too common omission from valve equipment in my view. Volume and input selection are both available of course, but no balance adjustment or mono switch, and the inputs are restricted to just four at line level – two single-ended RCA phono types, and two balanced XLRs. The volume control has a strong detent action and a slightly 'clunky' feel, but the steps and law seemed very well chosen.

The styling is maybe the most striking feature. The essentially square body section is wrapped in a hot moulded veneer – a choice of five alternatives are offered – and while the rounded edges add an attractive touch, unfortunately the net result somehow looks less classy than it should, even though the metalwork of the top surface, the feet and the terminal block is allegedly gold-plated.

The cleverest feature is undoubtedly the acrylic panels, which not only look original and interesting, but are also surprisingly useful, though their curves might have been more carefully shaped. The edges of the lower triangles slot into grooves around and above the feet, and magnets concealed underneath the amplifier hold the acrylic pieces in place. The four panels around each unit leave a useful gap between them to ventilate the valves, yet make sure all are in full view. They're not secured in such a way as to prevent prying fingers from deliberately ▶





- ▶ touching the valves, but do prevent accidental contact between flesh or clothing and the hot bits. The only down side seems to be that the acrylic panels have first to be removed in order to move the amps themselves.

Most valve amplifiers follow either the single-ended or the push-pull model, but theLars is neither of these. It's balanced throughout, consists of three distinct differential amplifier stages, and therefore has three carefully matched valve stages. Lars asserts that a differential amplifier gives lower distortion and better common mode rejection, which is really important in a zero-feedback amplifier. Exact valve-matching is also important that the valves are exactly matched, as there's no individual compensation for any current differential between the two valves in a pair.

The valves themselves consist of a 6N9P dual triode input, capacitor coupled to a pair of 6V6GT pentodes for the driver stage, and thence via transformer coupling to the 300B direct heated triode output tubes. A pair of GZ34 rectifiers is also used. All the valves were Philips branded apart from the classically looking Czech-made Emission Labs 300B matched pairs. A full set of spare valves, albeit of various makes, were also supplied, along with some very classily terminated heavyweight mains leads.

Some might complain that you don't seem to get a whole collection of exotic materials for the hefty price tag, but that's a red (and pickled) herring. Like loudspeakers, great amplifiers are much more to do with achieving a good overall balance than the inclusion of some mystically rare component or costly ingredient that represents a 'killer app'.

That being said, silver plated copper was selected for the wiring, and enamelled copper for the transformer windings. However, the winding techniques and choice of core materials were considered rather more significant. An amorphous core is used for the input phase splitting transformer, and high saturation silicone iron in the interstage and output transformers. One factor that does add significantly to the cost is that the soldering is carried out by Lars himself, because he believes that reliable, consistent and high quality lead-free soldering is too difficult a task to delegate.

One might question whether 20W is enough, and that of course will depend on quite a number of factors, including personal taste, size of listening room, normal listening distance, musical preferences, and loudspeaker sensitivity. Provided the sensitivity isn't too low (say below 88dB/W), or the room unduly large, 20W should prove ample for most purposes.

An extended loan period allowed theLars to be used with a wide variety of different speakers and several sources. The speakers used included PMC IB2i and Fact-8, Zu Essence, Wilson Audio Sasha and Rehdeko RK175, providing an exceptionally large range of qualities, impedances and sensitivities. In fact theLars is supplied with its Lundahl

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output transformers set for 4 ohm loads, though settings for alternative loads may be supplied to order. The main hi-fi sources were a Linn/Rega hybrid turntable arm with Soundstream Strain Gauge cartridge, a Naim CD3/555PS CD player, and a Magnum Dynalab MD106T tuner. Speaker cable was Vertex AQ Moncayo, alongside various balanced and single-ended interconnects.

Happily, theLars sounds wonderful, which perhaps is only to be expected in view of its high pricetag. What is considerably more impressive, however, is that it always and invariably managed to sound lovely whatever the quality of the source that was being used, which is a much more difficult trick, and it seemed to bring out the best. Not that it hides the deficiencies of poor source material in any way – it's too good for that – rather it somehow managed to avoid making weak sources sound unpleasant. ▶

► This has much to do with its splendidly innate sweetness through the upper midband and treble. There's simply no harshness in the sound of this amplifier, and therefore no tendency to exaggerate any untidiness or edginess in the signals. Indeed, a first impression was that the top end was a little too restrained, but more prolonged listening with wide-band speakers revealed that this was not the case at all. In fact there's plenty of top end fine detail, air and transparency here, but this is also exceptionally clean so there's a welcome freedom from any spurious 'hash'.

Besides being essentially very easy on the ears, theLars is also significantly faster than most amplifiers. There's little evidence of time-smear here, and if it's not quite the fastest amp I've ever encountered, it gets very close, and is more than a match for any solid state design I've encountered.

Helped by a very low noise floor, soundstage imaging is also first class, with fine depth perspectives, great transparency and first class focus. The BBC's Radio 3 programme *Choral Evensong* usually provides a fine example of miking a gothic cathedral in such a way as to capture the choir's singing in a very large stone-built acoustic with even and long reverberation times. TheLars sounded very natural and realistic here, with the plenty of clues to the size and disposition of the choir, and proper separation from the precisely ordered decay of the cathedral's reverberation. It also clearly defined the substantial imaging properties between the various speaker systems that were tried.

Indeed, if anything theLars seemed to highlight loudspeaker system differences, and only seemed to run short of power when pushed really hard. One could add that there was a strong tendency to wind up the volume with this amplifier because it sounds so clean and free from aggressive tendencies. The

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only minor qualm was that the bottom end of relatively bass heavy speakers like the IB2i and the Sasha could have sounded a little tighter and tauter to advantage, and this led to a slight loss of tension and grip when playing heavy material from Massive Attack, the KLF and the like.

A pleasant surprise was just how well it coped with 'difficult' loudspeakers. The Wilson Audio Sasha, for example, might have a good sensitivity of around 91dB, but this is achieved alongside an impedance that drops to a dramatically low 1.8 ohms in the mid-bass. Such a load could prove problematic for any amplifier, never mind one using valves and output transformers, yet theLars seemed to take it in its stride, and happily drove the Sashas rather louder than one might expect.

TECHNICAL SPECIFICATIONS

Type: two-box valve integrated amplifier

Power output (1kHz, 1% THD): 20W

Sensitivity for full power: 150mV

Speaker impedance matching: 4ohms (8 or 16ohm available to order)

Frequency response: (+/-0.5dB).10Hz-40kHz

Dimensions (WxHxD): 2x 30x50x38cms

Weight: 2x 21kg

Price: £71,300

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The second nice surprise came with the Rehdeko RK175s. This extraordinary speaker is a mixture of heaven and hell, sonically speaking. Despite possessing very high sensitivity alongside an easy load, it's remarkable for the ruthless way it reveals differences between components, especially amplifiers. The speaker's freedom from timesmear and vigorous dynamics, plus its strong emphasis on the midband and presence is very unforgiving, especially of the limitations of solid state amplifiers, most of which sound uncomfortably edgy and aggressive. The sweeter midband and top end typical of valve amps sounds much more acceptable, and that was very much the case with theLars, which made a splendid partnership with this notoriously difficult speaker.

There are very few weaknesses. I did notice some low level hum with my vinyl player, and since there's no earthing post on the amplifier, I merely linked the tonearm base to one of the XLR clips using thin wire and a couple of croc clips.

TheLars must be the most beautiful amplifier I've seen – or heard. The stratospheric price will necessarily rule it out for most people, and it's hardly the most practical or convenient package around, either in shape, input flexibility or features. But the bottom line is that it delivers an intense musical experience, from two unusually beautiful objects. +