

Audio Research LS28

This scaled-down version of ARC's REF 6 preamp sheds one pair of tubes and employs solid-state PSU regulation, but at half the price is the new 'Foundation' a giant-killer? Review: **Andrew Everard** Lab: **Paul Miller**

Even in the world of high-end audio, it seems the economic realities are setting in. Yes, there's still no shortage of well-heeled customers out there – fortunately, of the kind who only want the best or most expensive in a range, and (in certain markets) will even ask 'can you make me one that's gold-plated/more exclusive/even pricier?'. However, there's also the realisation that the path of true growth is to draw more enthusiasts into a brand and then hold their attention, which is why we see everything from off-the-shelf clothing from couture brands, and 'colt' watches, to the likes of Bang & Olufsen's B&O Play sub-brand.

Or, in the case of US-based but Italian-owned Audio Research, the Foundation range, whose LS28 preamplifier here, selling at £6998, is one of an initial trio of products, with more to come. But this is far from a 'diffusion' range. Instead the Foundation line-up has the clear intention of maintaining the values of the ARC brand, now part of the McIntosh Group and WOM (World Of McIntosh), while providing buyers a more affordable entry point to Audio Research ownership.

A BIG AUDIO FAMILY

For those who just went 'What? McIntosh owns Audio Research?' – the bare minimum of new readers, surely – the answer is yes, even if in name alone. This assimilation began with the Fine Sounds group, which itself grew out of celebrated Italian loudspeaker brand Sonus faber.

After a period under Italian investment company Quadrivio, the company was the subject of a management buy-out led by Fine Sounds CEO Mauro Grange and long-serving McIntosh Laboratory president Charlie Randall. Backed by private equity company LBO France, the two created the McIntosh Group and WOM, which

now encompasses not only McIntosh, ARC and Sonus faber, but also Sumiko and its subwoofer offshoot, Italian headphone company Pryma, and Wadia Digital.

The brands may be under one 'roof', but they're still very much separate entities. McIntosh and Wadia Digital are both headquartered in Binghamton, New York and Audio Research remains in Plymouth, Minnesota, where it was founded 46 years ago and where it has its 4500m² facility, employing some 50 staff in developing and hand-building its products.

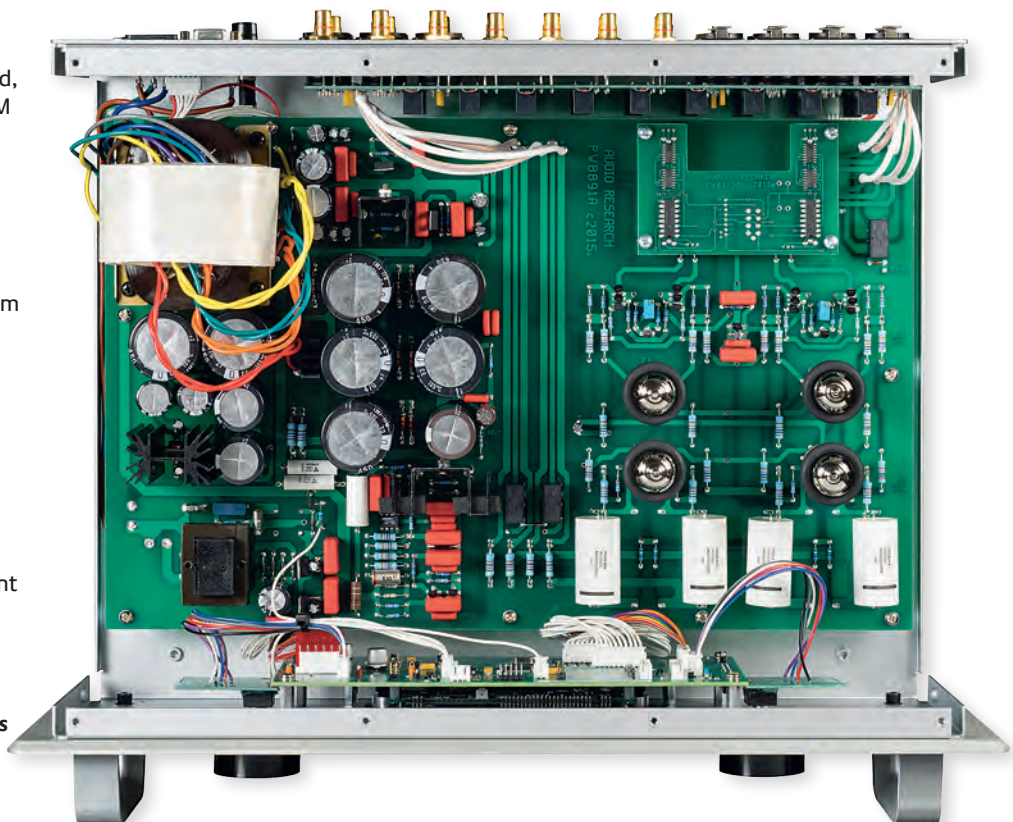
The Audio Research aesthetic is unmistakable: of the group's three major electronics brands, its products are the most 'technical' looking, with relatively plain solid metal fascias, black display panels, chunky buttons and controls, and of course those all-important grab handles. So while Foundation may be the company's

entry-level range, the family styling makes it possible to mix and match across the catalogue to arrive at a 'hybrid' system.

21ST CENTURY MINIMALISM

In design, the LS28 resembles a simplified version of the company's REF 6 preamp [HFN May '16]. It uses two pairs of 6H30 triodes in place of the three pairs in the pricier model, and solid-state power supply regulation in place of the REF 6's valves. The company points out that the LS28 is designed to work with just about any power amp on the market, but perhaps that's just a way of saying you could add it to a current set-up in place of an existing preamp, where no doubt it will just sit there tempting you to upgrade the power amplification, too.

As you might expect from an all-analogue preamplifier – relatively rare



RIGHT: The vacuum tube audio stage employs four 6H30 double-triodes (two per channel) with a solid-state, rather than tube-regulated, linear PSU. Secondary PSU services standby



these days when every preamp seems to be sprouting digital inputs or even network audio capabilities, and the lines between DACs and 'digital preamps' are becoming ever more blurred – the LS28 is a pretty simple device. Four sets each of balanced and RCA phono inputs are provided, along with two sets apiece of preamp-level outputs, plus one each of line-level 'record' outs. Add in RS232, infrared and 12 trigger control connections, and that's about it.

But then what more might you need?

This 'hairshirt-ism' doesn't quite extend to the control interface, though if you want to keep it simple you can just use the input select and volume controls

on the front panel and leave it at that, although there are also mute, mono and phase invert buttons.

However, you can also delve deeper into the operation of the preamp using its menu, which will allow you to adjust the display brightness, check the number of hours of use on the valves and assign one of the inputs as unity-gain, for example, for use with the output from a surround

processor. It's also possible to set or defeat automatic shutdown, and how long the LS28 should wait after sensing a signal or a control input before going into power-saving mode, and also decide whether it should retain the last volume setting for each input when switched off and then on again, or forget everything and go back to zero on restart.

You can also rename your inputs from a pre-installed library of labels, with these

descriptions appearing above the input

number on the display. And talking of inputs, the supplied remote handset gives you direct access to them on separate buttons, rather than having to scroll

through them using the input selector, and will also control options such as display brightness, muting, *etc.*, as well as adding a balance control.

Build quality here is exemplary, with the LS28 preamplifier offering the same 'hewn from solid' feel as other Audio Research products, and being constructed in the same way: by hand, with selected parts (many of which are unique to the


ABOVE: Like the REF 6, the LS28 has rotary controls either side of the fluorescent display for input select and level, with six function buttons below; IR remote takes care of the rest [p51]

company's products), hand-soldering of circuit boards and with individual listening tests carried out on each product by design staff. This may be Audio Research made more affordable, but there are no signs of any corners being cut here.

SWEET AND CLEAR

Using the LS28 is no trickier than with any other valve-based product, although you (or your dealer) will need to pop the lid and install the four valves before initially powering it up. The sample I received had already been through editor PM's lab test procedure, so required rather less running-in than would a brand-new LS28. Even so, I am sure I could sense some initial woolliness, which gave way to a more solidly defined sound after some hours' use.

Even from the off, however, what was immediately apparent was the sweetness and clarity of sound on offer from this highly accomplished preamplifier. It's not sweetness in that slightly cloying, oversmoothed sense that promises an easy listen but soon reveals things are just going to sound soft, in what many suspect might be 'the valve sound'. Rather, the LS28 is capable of a highly revealing presentation, and one with plenty of ambience but without any nasty hardness or 'edge' in the treble, and with excellent integration across the entire frequency range.

Playing Esther Apituley's *Stirring Stills* Bach arrangement for viola [Challenge Records CC 72726, DSD64] via my Naim NDS network source, what's most remarkable is the way the LS28 allows through all the richness and resonance of the solo instrument, plus the warm acoustic in which it's recorded, while still giving fine insight into the performer's 

'The LS28 can rock out but can also turn on a velvety smoothness'

STRONG FOUNDATION

The LS28 is one of a trio of Foundation products: also available is the PH9 phono stage [HFN Dec '16] and the DAC9 digital converter. The phono stage uses three of the same 6H30 valves found in the LS28, and offers five impedance settings, which can be changed on the fly from the remote handset. The DAC9, meanwhile, uses two 6H30s in its analogue section, and offers file compatibility up to 384kHz and DSD, while also allowing native-rate upsampling and a choice of digital filters to suit the listener's tastes. Inputs are optical/coaxial S/PDIF, BNC, AES/EBU and asynchronous USB, while a 'quad DAC' architecture allows balanced working throughout. A Foundation power amplifier is also on the way in the next phase of the roll-out. Called the VT80, it will be supplied using matched pairs of KT120 tubes to deliver a claimed 75W per channel, although its novel auto-biasing circuit will also accommodate 6550, KT88, KT90, KT120 or KT150s! And finally, a Foundation integrated amp is also said to be on the stocks.

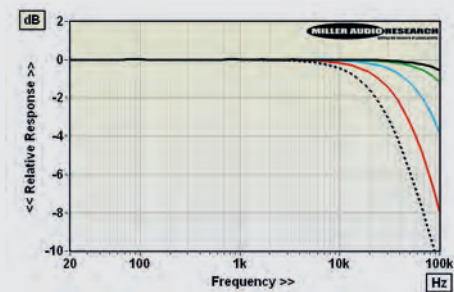


LAB REPORT

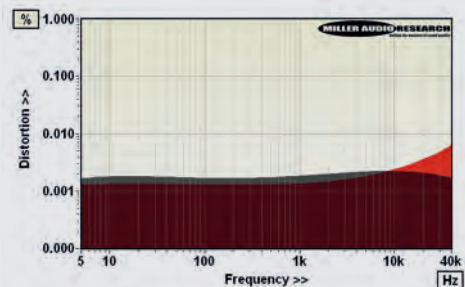
AUDIO RESEARCH LS28

Over six years on from the launch of Audio Research's REF 5 [HFN Oct '10] and, more recently, the upgraded and restyled REF 6 [HFN May '16], the half-weight (7kg vs 16kg) 'entry-level' Foundation series LS28 features only limited technological trickledown from these illustrious forebears. For example, overall gain from this 6H30 triode-based preamp (one pair of tubes per channel) is double that of the REF 5/6 at +18.6dB (balanced in/out) and the A-wtd S/N ratio some 3dB poorer at 93.2dB (re. 0dBV), while unity gain occurs at volume position '41' on a scale of 1-103. Maximum output is still a substantial 19V, but not the heady 55V of the REF 6, although the 300-460ohm source impedance is unchanged. Distortion is also very fractionally higher but still within ARC's 0.007% spec. at typically 0.001-0.003% from 20Hz-20kHz [see Graph 2, below]. Versus output level, THD increases from just 0.001% at 0.5V to 0.004% at 2V and 0.007% at 10V – demonstrating, once again, that tube amps needn't be especially coloured.

Like the REF 5/6, however, the LS28's response varies with volume setting [see Graph 1] suggesting that ARC's buffering follows a similar practice. The roll-off vs. volume position is *different*, however, for while the LS28 still achieves its flattest response of -0.02dB/20kHz and -0.60dB/100kHz at full volume (+18.6dB gain or 103 on the display), its most aggressive treble roll-off of -1.6dB/20kHz and -11.0dB/100kHz now occurs at +13dB gain (89 on the display). As volume is reduced the treble slowly picks up to achieve -0.7dB/20kHz and -8.0dB/100kHz at +6dB gain (61 on the display), -0.2dB/20kHz and -3.9dB/100kHz at 0dB/unity gain (41) before reaching -0.08dB/20kHz and -1.7dB/100kHz at -12dB gain (29 on the display). The -0.25dB/3Hz low frequency roll-off is unaffected by gain. PM



ABOVE: Frequency resp. vs. volume (vol display = 103, black; 89, black dashed; 61, red; 41, blue; 29, green)



ABOVE: Distortion versus extended frequency from 5Hz-40kHz at 0dBV (left, black; right, red)

HI-FI NEWS SPECIFICATIONS

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|----------------------------------|-----------------------------------|
| Maximum output (<1% THD, 47kohm) | 19Vrms (Balanced) |
| Maximum input level (<1% THD) | >10Vrms (Balanced) |
| Output impedance (20Hz-20kHz) | 303-460ohm (Balanced) |
| Freq. resp. (20Hz-20kHz/100kHz) | +0.01dB to -0.2/-3.9dB (re. 0dBV) |
| Input sensitivity | 117mV (Balanced) |
| A-wtd S/N ratio (re. 0dBV) | 93.2dB |
| Distortion (20Hz-20kHz re. 0dBV) | 0.001-0.003% |
| Power consumption | 61W (4W standby) |
| Dimensions (WHD) / Weight | 480x137x348mm / 7.2kg |



ABOVE: Line-level preamp offers four balanced (on XLR) and four single-ended (on RCA) inputs with pairs of XLR/RCA outputs (plus rec out). RS232 services automation

technique, with a fine sense of the bite of bow on string. This combination of dynamics and detail carries through to larger-scale works, such as the Borodin 'Polovtsian Dances' on the recent Channel Classics recording of Tchaikovsky's *Pathétique* Symphony [CCS SA 37016; DSD64], where the exuberance of both the playing and the choir was underpinned with weight and power, while maintaining its tight rhythms.

SEASONAL CHEER

Meanwhile the sheer wonderfulness that is the Dunedin Consort's new reading of Bach's *Christmas Oratorio* on Linn Records [CKD 499D, 192kHz/24-bit] simply glows from the speakers. (I'm writing this in mid-November, and feeling decidedly festive already!) Change gear to the latest Norah Jones set, *Day Breaks* [Blue Note 4795442; 96kHz/24-bit], and the near-luminous view of the singer's voice, plus the well-measured jazz accompaniment, is conveyed seductively by the LS28, with that sense of nothing being lost and no hardness being added.

Yes, this preamp can rock out when required, providing its partnering components are up to the task, but when used with a superb player like Naim's NDS it's also able to turn on that velvety smoothness when required.

So yes, there is that archetypical tube-like generosity of sound and ease of listening, but above all this preamp is really about not being there – or rather appearing not to be there – allowing the rest of the system to do its thing. With a range of music from the finely-recorded examples given above to some classic punk era sets, taking in

everything from The Clash's *London Calling* [Columbia COL 460114 2] to TRB's *Power In The Darkness* [EMI 866 7642] – neither of which could boast audiophile sound quality – the LS28 simply lets the sound of the recording shine through.

That means hard-hitting percussion and growling bass on the title track of the Clash album, and the snarl in Robinson's voice belying the catchy pop hooks of his band's 1978 debut set, recorded when the outfit was gigging hard and building a loyal following. Play either of those albums on systems built almost 40 years on and one can be transported back to days of long hot summers and threatening civil unrest, the LS28 letting all the atmosphere and emotion of these recordings power out from the speakers.

If you ever fell for the myth that tubes were only suited to sultry, shimmering jazz and lovingly-captured classical instruments, the LS28 will soon set you right, proving both a transparent and entirely compelling listen. True, even this 'entry-level' Audio Research model is pitched at a substantial price, but its performance is far from simply being a taster of what the company's Reference range can offer. ☺

HI-FI NEWS VERDICT

An invisible preamplifier? Well, the striking visual statement, very much in the usual Audio Research mould, goes against that, but the sound here has a transparency and liquid quality to make it well-suited to a wide range of systems, while its simplicity and flexibility also appeal. If you hanker after the qualities of the much pricier REF 6, but can't stretch to its price-tag, the LS28 won't leave you feeling short-changed.

Sound Quality: 88%

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