

Musical Fidelity A1

First the Nu-Vista series, and now the iconic 'Class A' A1 integrated is reimagined by Musical Fidelity's new owners. How close to the original is this modern version?

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Now that Heinz Lichtenegger, president of parent brand Audio Tuning, is comfortably behind the wheel of Musical Fidelity and the marque is churning out a steady flow of new products, including the rather notable Nu-Vista amplifiers [*HFN* Mar & Aug '23], it's good to see the full history of this British brand being revisited. The £1499 reissue of the 'griddle plate' A1 integrated amplifier is a case in point. Without losing sight of the past – or the original A1's flaws – it has been reworked by Simon Quarry, the engineer in charge of most new Musical Fidelity designs. The result is a fully symmetrical, Class A-biased amplifier that looks, and sounds, true to the original – it is not simply a vintage lookalike with unconvincing innards.

Let's cut to the chase: what about that hot top panel, which had some punters remarking that the first A1, designed by the late Tim de Paravicini, was also handy for grilling cheese sandwiches? While the new unit doesn't get quite as hot the old A1 [see PM's boxout, p73], it's still not a wise idea to leave your hand resting on it too long. To be fair, there are multiple warnings to that effect printed in large capitals throughout the bundled manual.

CASE STUDY

Those familiar with the original A1 will be pleased to note little has changed in terms of industrial design. However, many won't remember that amp at all – because they weren't even born when the hi-fi press was

RIGHT: Large transformer [top] feeds enhanced PSU [right] in the new A1. MM/MC phono stage and local input selection [bottom right] are joined by motorised volume [left] while one pair of power transistors, per channel, are bolted onto a heatsink block [centre]



gushing about its performance – and to modern eyes the new A1 might appear a bit peculiar. Its low 6.8cm height profile, and black metal case with a top that acts as one large heatsink, are reminiscent of a custom install product. Or maybe one of those amplifiers you see driving a subwoofer in the rear of a hot hatchback.

Still, the A1 appears well built and its styling exudes a different type of 'vintage aura' than retro hi-fi such as NAD's C 3050 LE [*HFN* Apr '23] or Mission's reissued 770 [*HFN* Jun '22], both of which look back to

the 1970s. For some reason, when I first saw the A1 I was immediately reminded of my first Amstrad CPC computer, even though that was a lot more compact than today's full-width A1 amplifier. Maybe that's not exactly what Lichtenegger *et al* were aiming for, but then again, the 1980s rarely offered up design high points.

PURE INSTINCT

In its upgrade of a near 40-year-old concept, Musical Fidelity has resisted the temptation to stray far from the original specification by adding a digital stage or streaming functionality. The new A1 is a purely analogue amp, with six unbalanced RCA inputs – one for use with a turntable – flanked by tape out/pre-out RCAs and a single set of speaker terminals.

The A1's MM/MC phono stage is switched between modes by an authentic push-button on the rear that clicks nicely when pressed. The controls at the front feel very '80s too, with a sturdy on/off button forming the bottom half of a circle – the top half being a blue power LED. Two large circular knobs recessed into the fascia handle volume and input switching, though it's also possible to change the volume with the A1's back-to-basics remote control [p75]. Do this and you'll be greeted by a loudish motor turning the ALPS potentiometer. Operationally there's little hassle or complexity here, which will make for a nice change if you've been juggling the functions of a do-it-all streaming amp.

Under the hood, the design employed by the original A1 is by and large retained though it's now closer to the dual-mono ideal courtesy of separate transformer secondaries for the L/R channel PSUs.



Inside, the alloy U-section to which the power transistors are bolted is now also connected to the main chassis as well as being 'bonded' to the top 'griddle plate' with heatsink compound. In the earliest A1s this alloy spine was simply held in place on the PCB by the transistors' legs – cue disaster if the top plate was pulled off by a curious enthusiast/reviewer...

Anyway, the preamp stage in the new A1 is unchanged, though Simon Quarry has added a 'direct' mode that bypasses it, and its +10dB gain, altogether. Officially, the Musical Fidelity A1 is slated to deliver 25W/8ohm, although PM's measurements [see Lab Report, p75] shows it to be a bit more capable – the design 'slides', to quote the

company's marketing department, into Class AB when pushed that bit harder.

THE BIG EASY

Although calling the sound offered by the A1 'warm' might come over as lazy journalism, this reissued amplifier does deliver your music with a nearly tube-like, organic presentation. There's an engrossing, massive feel to the performance, but also some softness to the top-end, depending on the loudspeakers with which it's used. Together with a bit of mellowness

'There's nothing regular about this blend of Viking poems'



A CLASS ACT

Complementary (push-pull) Class A amplifiers operate with sufficient bias current that both halves of the output stage remain conducting throughout the entire signal cycle, unlike Class AB designs where there's a 'handover' between negative and positive (and vice-versa) cycles, generating a 'crossover' distortion. But Class A operation is very inefficient, at best achieving 50% conversion of power drawn from the wall into power delivered to the loudspeakers. In practice they are rather less efficient still, not least due to the complex nature of music signals and variations in real-world loudspeaker impedance.

When I tested the original A1 in 1987 [inset picture] it was running by the skin of its transistors with heatsink hotspots in excess of 68°C and a true Class A rating closer to 10W than 20W/8ohm. If we ignore 2008's revamped A1 as an aberration [*HFN* Nov '08] – 2x40W/8ohm and 2x65W/4ohm but not in Class A – then 2023's re-imagining is the first that's true to both the design and spirit of Tim de Paravicini's original, albeit improved with its split transformer secondaries and increased reservoir capacitance. The maximum temperature reached by the 'new' A1's heatsinks is 63°C when running 'idle', consuming 91W from the wall. This temperature reduces to ~40°C when the A1 is running at a steady 2x10W/8ohm for 30 minutes where a significant portion of the quiescent current is then diverted to audio rather than simply waste heat.

Not all the A1's 25W are claimed as 'Class A', hence its AC power consumption inches up to 100W when delivering 2x25W/8ohm. A more accurate estimation is derived from the ~375mV DC bias set across the 0.47ohm emitter resistors – amounting to 0.8A (or 1.6A peak, twice the standing current). Treated as a default push-pull stage, this still works out at roughly 10W/8ohm per channel. PM

ABOVE: Wider than the original, and with motorised volume and switchable gain, the A1's iconic angled alloy fascia and functional heatsink top-plate are retained

and smooth midrange handling, it's suited to both easy listening and more 'critical' sessions. It's reasonable to call the A1 a very versatile overperformer.

While PM's Lab Report shows the A1 doesn't possess the capacity to drive every choice of loudspeaker, during my auditioning it didn't sweat when connected to a pair of Monitor Audio Platinum 100 3G standmounts, on which the majority of listening occurred, or my trusty DALI Rubicon 2 models. Both speakers feel like a logical choice for an amplifier in this price/size class, and KEF's LS50 Meta [*HFN* Jun '21] is no doubt worthy of consideration, too. Musical Fidelity also now produces its own LS3/5A miniatures, but they might be a bit of stretch in this case.

As the front man of rock group The Hold Steady, Craig Finn has shown himself to be one of the most inventive lyricists of the past decade. His prowess at creating songs that feel like little novels is highlighted even more on his 2019 solo album *I Need A New War* [Partisan Records PTKF2165-3]. Playing the LP via Pro-Ject's X2 B [*HFN* Sep '22] with an Ortofon Quintet Red MC cartridge, the Musical Fidelity amp served up the nearly spoken vocals of 'A Bathtub In The Kitchen' faultlessly.

REAL BLAST

Detailing the relationship of an old friend who made some unwise lifestyle choices, the song is full of humanity and sadness, and it's very effectively rendered by the all-encompassing presentation of the A1. As little amps go, it convincingly put the focus on the music as a whole, not particular instruments or just the vocals.

Sons of Kemet's 2013 *Burn* [Naim Jazz NAIMLP201], again via the X2 B turntable, greeted me with the London jazz outfit's trademark fat staccato brass notes. It was literally a blast, although the dynamics ↪

INTEGRATED AMPLIFIER



ABOVE: MM/MC phono and four line inputs are joined by one tape loop and preamp outs all on RCAs. The single sets of 4mm speaker cable terminals are tightly packed

were a bit suppressed when the quartet gave it their all on 'The Itis'. Elsewhere, the A1 handled the whirlwind tuba solos beautifully, and the final track, a tender sounding eight-minute instrumental version of 'Rivers Of Babylon', showcased the amp's warmth and smoothness.

SPINE-TINGLING

You might disagree that *The Fog* or *Big Trouble In Little China* are cinematic masterpieces, but there's no denying the original themes that director John Carpenter created for his many cult classics are exemplary examples of 1980s synth and guitar (they also saved his producers having to pay a composer and musicians – a double win). And Carpenter's work feels like it was made for the A1, as the lithe amplifier appears totally in its element while adding a warm glow to the already thick synthesiser line of *Assault On Precinct 13* or the spine-tingling piano on *Halloween*. Listening to these tracks on *Anthology: Movie Themes 1974-1998* [Sacred Bones Records], streamed via a Primare PRE35 [HFN Dec '19] and Roon (through rooExtend), I was struck by how easily the A1 breathed life into these rather sparse compositions.

Musical Fidelity's slim integrated amp also proved very capable of projecting the punchy, impactful percussion that underlays 'Asja' on the extraordinary *Drif* album from Danish experimental band Heilung [Season Of Mist; 48kHz/24-bit download].

LEFT: The new A1 includes a simple remote handset with control over mute and volume



There's nothing regular about this blend of Viking poems, deep guttural vocals and traditional instruments, which perhaps can be expected from a band that was allegedly formed when producer Christopher Juul traded recording sessions for some free tattoos from vocalist Kai Uwe Faust. Whatever the story behind it, Heilung's music captures a very particular mood – nearly all of which was communicated by the A1.

FEEL THE FORCE

During this album the pure scale of the amplifier's portrayal really made an impression and it became easy to forget the A1's affordable nature. The growls, chanting and horns that blast in the background as 'Tenet' builds to a crescendo displayed huge width and depth. As with the John Carpenter themes, the A1 hit its stride as this lengthy song increased in both intensity and force.

At the end of what seems like an entire album – but is just one track – a cry echoes convincingly into the distance, before gracefully segueing into mesmerising Nordic singing, which has just the right mix of clarity and smoothness. Coloured and not entirely accurate the A1's presentation might be, but all is forgiven when it makes music so expansive and expressive. 🎵

HI-FI NEWS VERDICT

It's easy to be sceptical about 'classic' designs returning to the market, but in this case Musical Fidelity has done an excellent job. The new A1 remains faithful to the original intent of its much-loved forebear, while improving what needed improving. Regardless of the nostalgia aspect, this is a fine performer that should give more contemporary rivals in its price class a real run for their money.

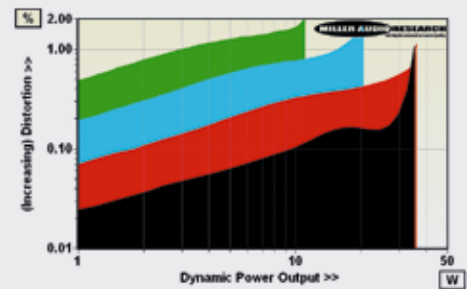
Sound Quality: 88%



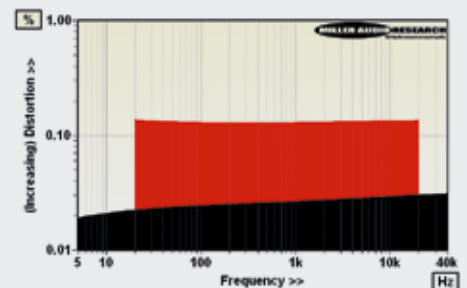
MUSICAL FIDELITY A1

Few brands take advantage of the high 2V+ output of modern line-level sources – most still design amps with an unnecessarily high 35-45dB overall gain – so it is refreshing to see MF offering 'Normal' and 'Direct' modes of operation, the latter bypassing the A1's preamp stage to offer a reduced +24.1dB gain ('Normal' is +35.7dB). 'Direct' requires a perfectly achievable 885mV input to raise its rated 2x25W/8ohm output while also optimising the full arc of the A1's volume control. Tested in 'Direct' mode (there's no appreciable difference in noise, distortion or response in 'Normal' mode) the A1 delivers 2x34W/8ohm but drops to 2x18W/4ohm at 1% THD (increasing to 30W only at 3% THD). Under dynamic conditions there's some Class AB headroom that takes it to 36W, 36W, 21W and 11W into 8, 4, 2 and 1ohm loads (2 and 1ohm are at 2% THD), so while the 'Planar Audio transistors' may have a potential '25A max output', in practice only 3.5A is realised at <1% THD [see Graph 1, below].

As might be anticipated, distortion is lowest at low levels (0.026% re. 1kHz/1W/8ohm) and then increases linearly with power output to 0.14%/10W, 0.23%/20W and 0.27% at the rated 25W. While this is 'high' for a typical transistor amp, the harmonics are simple second-order and – more important still – are very uniform with frequency [see Graph 2, below]. The 85.5dB S/N ratio (re. 0dBW) also shows a hint of 'warming' hum punching through the A-weighting curve. The response shows a subsonic roll-off amounting to -0.4dB/10Hz and -6dB/2Hz while the HF reaches out to -0.3dB/20kHz and -6.0dB/100kHz, all from a moderate, but uniform, 0.33ohm source impedance. For more about the A1 and 'Class A' see my boxout, p73. PM



ABOVE: Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 3.5A



ABOVE: Distortion versus frequency versus power output (1W/8ohm, black; 10W/8ohm, red)

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	34W / 18W (30W @ 3% THD)
Dynamic power (<1% THD, 8/4/2/1ohm)	36W / 36W / 21W / 11W
Output imp. (20Hz-20kHz/100kHz)	0.335-0.330ohm / 1.08ohm
Freq. resp. (20Hz-20kHz/100kHz)	-0.1dB to -0.29dB/-6.0dB
Input sensitivity (for 0dBW/25W)	177mV / 885mV
A-wtd S/N ratio (re. 0dBW/25W)	85.5dB / 99.5dB
Distortion (20Hz-20kHz, 10W/8ohm)	0.128-0.136%
Power consumption (Idle/Rated o/p)	92W / 100W (1W standby)
Dimensions (WHD) / Weight	440x68x283mm / 10.5kg