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# SUGDEN AUDIO

## MASTERCLASS LA-4 & SPA-4

PREAMPLIFIER & POWER AMPLIFIER

Reviewer Stephen Dawson



If you were a music lover living in the mid-1960s who wanted the very best-sounding amplifier, as well as the convenience of the then-new solid-state designs, you faced an unfortunate problem. Those solid-state (transistor) amplifiers tended to produce a nasty, fairly audible distortion due to many using a Class B configuration. Here, one transistor handles the positive side of the signal, another the negative, and the output of the two is stitched together. Even the very slightest misalignment produces distortion — and there is always some misalignment. This is called crossover distortion.

Two solutions emerged during the latter part of the decade that are still with us today. One was Class A/B, where a DC bias was applied to the output to push the signal towards either the positive or the negative. For most of the time, the amplitude of the waveform would therefore be low enough to avoid hitting the crossover point, thus avoiding crossover distortion. This solution principally appeared first in Japanese hi-fi products, but soon became the most common technology used in power amplifiers, and remains so to this day.

The other solution was Class A, where a much higher bias was applied so that the entire waveform was handled by one transistor without ever trespassing onto that problematic crossover zone. As far as analogue power amplifiers go, Class A remains the gold standard.

So why this little technological history lesson? Well, it seems that the first ever commercial full Class A amplifier was the Sugden Audio A21, released by founder James Edward Sugden in 1968.

Indeed, we must confess to feeling privileged to take custody, albeit for just a fortnight, of Sugden's LA-4 preamplifier and SPA-4 Class A power amplifier. After all, not many modern products have a direct connection to an important part of hi-fi history.

### SPA-4 POWER AMP

The LA-4 and SPA-4 sit within the British company's Masterclass range, which might equally have been called the 'no-compromise' range, or at least the less compelling 'minimally compromised' range. (Every piece of audio equipment

ever made has some compromise in order to conform to real life.)

That compromise is indeed very minimal with the SPA-4. Physically, it's a monster, standing 25cm tall and weighing over 20kg while adopting the typical component width.

The two available panel finishes are 'graphite' and 'titanium', the latter of which adorned my review sample. Before the duo arrived, we figured that titanium was a nice descriptive term for good old-fashioned brushed aluminium, but not so in this case. We're unsure whether titanium is actually used in the front panels, but the metallic finish is neither brushed nor precisely the hue of aluminium. It's a little darker, richer and certainly more visually pleasing.

Down the full length of both sides of the chassis are vertical heatsink fins, aided by additional ventilation slots in the top panel. They're all necessary. You see, for all its sonic promise, Class A is very inefficient because the output transistors are in a continuous state of operation, even when nothing is happening. That produces heat, which must be dissipated by heatsinks.

Even when the SPA-4 was idling (receiving no signal), we couldn't keep our hands on the heatsinks for more than a second or two. Our power meter



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indicated a draw of around 215 watts. For comparison, our own 125/250-watt (8/4-ohm) Class A/B power amplifier, which boasts five watts of Class A bias, draws around 20 watts while idling. We note this in case you have a hangup about energy usage. We don't.

The Sugden SPA-4's output is rated at 50 watts into 8 ohms with both channels working, and 75 watts into 4 ohms under the same conditions.

The power amplifier can be fed by either RCA or balanced XLR. Two push-button switches on the back panel allow





We like having plenty of turn left in the volume knob, and the LA-4 definitely provides that... it can deliver 20dB of gain

you to switch between these. It wasn't clear from the manual or on-unit labelling which selection was 'in' or 'out', but the former position turned out to be the balanced input.

We opted for balanced, principally so that cable changes within our existing system would be minimal while we tested the Sugdens. Our XLR cables are all Mogami Gold, which, in the audiophile scheme of things, are not particularly expensive. But since these kinds of cables are used in making recordings, well...

We've reviewed many amplifiers over a couple of decades, but we don't recall previously seeing the binding posts used on the SPA-4. They are solid metal, gold-plated, with plenty of options for your choice of speaker cable terminations. Winding back the larger sections of the terminals revealed a nice slot through

which to push the lugs so that the prongs surrounded the centre pillar. The terminal diameter was such that we could achieve a very tight grip with finger strength alone. These speaker connections are about as good as such things can get.

#### LA-4 PREAMPLIFIER

The LA-4 preamplifier is entirely analogue — no digital inputs here. Neither is there an integrated phono stage. Sugden presumably believes, correctly in our view, that enthusiasts buying at this level will want to add an outboard phono stage and/or DAC.

The front panel has four controls: a rotary knob each for volume and input selection, and a push-button each for power and record out.

Wait, *what?* Record out? While it doesn't look like a throwback, the LA-4 does indeed embody some of the 1970s hi-fi ethos. That button is for the tape loop. Perhaps it's not even a throwback, so much as an anticipation of the return of the cassette tape, or perhaps the reel-to-reel. A set of RCA outputs provides a record signal to whatever recording device you plug in there. These are connected, when the front-panel switch is set to 'on', to whatever input is currently selected. The level is not altered; you'll need to use the recording device's control.

In addition to the tape inputs are four additional sets of line-level RCA inputs and one pair of balanced XLR inputs. There's also a 'bypass' input which, when the unit is in standby mode, connects

directly to the outputs. Interestingly, despite this input using regular RCA connectors, it provides output via both the RCA and balanced XLR outputs. Use this with extreme caution: don't accidentally plug your cassette deck into the adjacent bypass sockets. The input signal is transferred to the output with no attenuation. You could easily blow up your speakers or do other damage.

Admittedly, we would have loved a second set of XLR inputs. Our own system employs one pair of RCA inputs and two pairs of balanced XLR inputs. One of the XLRs is from either our streamer DAC or another DAC into which a streamer (and several other digital devices) are plugged, while the other XLR is used for the phono stage for my primary turntable. (The preamp is a SimAudio Moon 3100, fed by a Thorens TD 1600 running a Goldring Ethos moving-coil cartridge. The only phono input we normally use on our usual preamplifier is from our secondary turntable — a Technics SL-1500C with an Audio-Technica AT-VM95E moving-magnet cartridge. We use its own built-in phono amp. When we're exploring second-hand vinyl purchases, we don't want to drag the Goldring's rather expensive stylus through unknown, often rough, terrain!)

The volume level itself was another interesting throwback. Back in the vinyl-only days, your volume control would rarely need to move clockwise past 12 o'clock for a most fulfilling level. And when CDs appeared with their relatively hot two-volt outputs, 10 o'clock was typically the max. With more recent gear, especially higher-end stuff, volume control often needs to be turned to at least 12 o'clock. Perhaps it's just old habits, but we like having plenty of turn left in the volume knob, and the LA-4 definitely provides that because it can deliver 20dB of gain — none of this mere 1:1 stuff here. You can therefore expect the volume control to rarely stray beyond 11 o'clock. If you have a low-level source, you can turn it up to satisfying levels.

The remote control was... interesting. It's barely mentioned in the LA-4's very slim manual, and its six buttons control only two functions: three increase the volume, three lower it. Perhaps there is some difference between the jumps each invokes, but as far as we could tell they



all operated at about the same speed. Initially, we thought the lack of an input selection control on the remote would prove a hindrance, but in practice we usually had to get up anyway to pop in a CD or whatever when we wanted to change source.

The manual for the power amplifier, also skimpy, makes no recommendation about leaving the amplifier on all the time or switching it off when not in use. In part, your decision will likely be affected by the considerable amount of heat it pumps out into the room. If you do want to switch it off (and then on again), you'll have to press the large power button on the front panel. There is no trigger output on either component.

#### LISTENING SESSIONS

We used the aforementioned Thorens/Goldring combination for vinyl playback, while all of our listening went through Dynaudio's Contour 20i speakers. As their nominal impedance is four ohms, the nominal power delivered to them by the SPA-4 amplifier was as much as 75 watts.

When conducting these reviews, we're no less immune than anyone else to the charms of spinning the highest of

high-fidelity discs, both vinyl and optical, from our collection — especially when using equipment as high-end as this Sugden duo. But we mostly try to stick to the more pedestrian recordings. So we spun up Billy Joel's 1986 record *The Bridge*, which we would have bought in that very year. It isn't a half-speed master, just a standard lightweight pressing, but it was one of those lucky purchases in which our copy was seemingly produced early in the pressing run, and so is clean and free of all but the lowest noise level.

This is a Phil Ramone production (good!), but as it was produced smack bang in the 1980s (not so good!) it's delivered in a slightly bright and quite pushy style. Nonetheless, as delivered by the Sugden units, there was still air to be had and to be heard. In particular, the tone of the drums on *Code of Silence* on Side Two was entrancing, their full-bodied roundness delivering a true sense of presence. Timing was immaculate, and on several of the tracks the bass guitar was grindingly engaging.

Changing genres and time but sticking with vinyl, we moved to *Skeleton Tree* by Nick Cave and the Bad Seeds, our pressing of this 2016 album immaculate.

The thickly layered instruments and synths of *Jesus Alone* were fused into a whole of musicality, while leaving every element available for close inspection whenever we wanted to focus. As with Billy Joel's drum, through the Sugden duo there was tangible wholeness to the various instruments, a kind of 'reach out and touch it' feeling.

And the bass — the grinding, haunting bass on several of the tracks — was simply as good as it gets: controlled, clean and perfectly balanced.

Even older than the Billy Joel record, but definitely more of an audiophile recording, was one we bought in the early 80s, having heard it at a hi-fi show — the 1981 album from Pat Metheny (guitars etc) and Lyle Mays (keyboards), *As Falls Wichita, So Falls Wichita Falls*. Unbidden, a smile came to our face the moment the first bass guitar string was plucked.

Midway through the title track, which occupies the whole first side, Nana Vasconcelos delivers an astonishing, multi-layered percussion solo. The Sugden amplifier exercised absolute control over the Dynaudio speakers, with perfect articulation of each strike on the drumskin sufficient to reveal — to someone more





knowledgeable than us — where on the surface the strike took place. Even we could appreciate each strike as subtly different to the others. As the climax is reached near the end of the side, the tambourine-like overlay remained clear as the guitar, bass and synth swelled.

One of our most recent purchases is a pristine 1980s Chesky vinyl reissue of the 1959 RCA recording of Respighi's *Pines of Rome* and *Fountains of Rome*, performed by the Chicago Symphony Orchestra and conducted by Fritz Reiner. While some classical labels used heavily multi-miked techniques even then, the RCA 'Living Stereo' classical recordings from that period used three microphones (condenser or, possibly, ribbon) direct to magnetic three-track. The writeup on the Chesky record cover explains that for this version, the three tracks were mixed to two in a tube preamplifier and fed, all in one process, to the cutting lathe — no mixing console, no EQ.

We aren't going to repeat all we've said above about the Sugdens' superb delivery. As it was for those tracks it was also for this, the most analogue possible of renditions. Take it as read that everything was there.

But one thing we really wanted to do was push the amplifier. As we mentioned, our regular power amp is a Class A/B unit rated at 250 watts into 4 ohms, matching the nominal impedance of the Dynaudio speakers. Again, the SPA-4 is rated at 75 watts into 4 ohms, and with a rated sensitivity of 86dB, which is about 3dB less than the average hi-fi loudspeaker, meaning that, on paper, you need double

the power to achieve the same volume. Could the Sugden cope with that?

The last track on Side One, *The Pines of the Appian Way*, builds to a massive climax from the 117-piece orchestra. It's said that 1,500 pressings on its first release had to be recalled because of "overmodulation". So we wound up the preamplifier as this track approached and paid very close attention. The Sugden power amplifier proved perfectly happy to deliver that climax at a thunderous level. It sounded, if anything, relaxed — unstressed in the endeavour. Even while thundering away, the elements of the orchestra were easily identifiable, clean and clear.

We repeated the loud listening with several hard-rocking tracks, delivered by the DAC from our CD transport, and by the same DAC from Tidal via a connected music streamer. Not once did we find any sense of limitation. Maybe if you have a massive listening room, you should consider more efficient speakers, but honestly we'd be surprised if anyone found the power insufficient.

### CONCLUSION

Much of the hi-fi world is now highly corporatised, with a fair few famous brands of the past not quite badge-engineered but at least sharing technology with corporate stablemates, their products often manufactured at low-cost, foreign facilities. But J E Sugden & Co Ltd remains in England, building its products by hand, and at prices that are often surprisingly affordable by the standards of high-end audio.

That's the case here. Both the LA-4 preamplifier and the SPA-4 power amplifier are gorgeously finished, clearly well-built, and absolutely magnificent performers. It was our pleasure to spend time with them. **£**

## SPECIFICATIONS

### SUGDEN LA-4

**Price:** \$7,495

**Warranty:** 2 years

**Inputs:** 5 x RCA, 1 x balanced XLR, 1 x stereo bypass input (RCA)

**Outputs:** 2 x RCA, 1 x balanced XLR, 1 x tape output

**Frequency response:** 15Hz-30kHz +/-0.1dB

**Dimensions (HWD):** 9 x 43 x 33.5cm

**Weight:** 6.3kg

### SUGDEN SPA-4

**Price:** \$12,495

**Warranty:** 2 years

**Inputs:** 1 x RCA, 1 x balanced XLR

**Outputs:** 4 x binding posts

**Power output:** 2 x 50 watts (8 ohms); 2 x 75 watts (4 ohms)

**Frequency response:** 15Hz-3kHz +/-0dB

**Bandwidth:** 2Hz-200kHz +/- 3dB

**Dimensions (HWD):** 25 x 43 x 36cm

**Weight:** 20.15kg

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