

Exposure 3510 Mono

Long-awaited, while the monoblock version of Exposure's 3510 amplifier series looks just like its Stereo and Integrated models, in practice it is a new and highly refined amp
 Review: **Mark Craven** Lab: **Paul Miller**

When Exposure launched its 3510 series in 2021, as a replacement for the venerable 3010 range, attention was first given, perhaps unsurprisingly, to the integrated amplifier [HFN Nov '21]. One year later it was joined by a stereo power amp and partnering preamp [HFN Nov '22], and a year after that we witness the arrival of the 3510 Mono, tested here. Such an approach is not unusual for a boutique brand – a fair description of the Sussex-based company – but it's perhaps also indicative of the hidden differences between Exposure's amplifier designs.

As PM highlights in his Lab Report [p65], the 3510 Mono, priced at an affordable £2990 per pair, is not simply a beefier, single-channel implementation of the technology underpinning the equally wallet-friendly, £1590 3510 Stereo. While the 3510 Mono and 3510 Stereo look similar under the bonnet [see picture, below right] the former includes fundamental revisions, headlined by a balanced line input stage. Moreover, the power amp stage is now DC- rather than AC-coupled and features 'non-invasive' electronic protection. There's a subtle change in specification too, as the 3510 Stereo's 110W rating is 'rounded down' to 100W/8ohm in this monoblock version.

TRIPLE JUMP

The 3510 Mono's fully-balanced architecture makes it something of an outlier in the otherwise single-ended-only 3510 series. It's therefore not quite a slam dunk match for the 3510 preamplifier [see PM's boxout, p63], but you get the feeling there's some trickledown technology from Exposure's flagship 5010 series at play.

The 3510 Mono and Stereo do share the same industrial design, however. Viewed from the front the two amps are identical,

RIGHT: The 3510 Mono has the same beefy linear PSU [toroidal transformer and top PCB, left] and two pairs of Toshiba power transistors per side [heatsink, centre] but the input is now balanced and the circuit DC-coupled throughout

with the same aluminium casework and thick extruded front-panel, offered in either discreet black or a more eye-catching titanium. Only a company logo, status light, power button and a cut groove in the fascia prevent its descent into austerity. The back panel is also broadly similar, with Exposure again favouring inset 4mm speaker cable sockets (two sets, enabling bi-wiring) over binding posts. A small push-button, next to the RCA and XLR terminals, handles the selection of the 3510 Mono's balanced or unbalanced output.

Meanwhile, the amplifier's 440x300mm (wd) footprint is easy to accommodate just as its 12kg weight won't destroy your back. Furthermore, as its feet raise the cases to ensure adequate, cooling airflow, there's nothing to stop you going for a neat and tidy pre/power triple-stack set-up.

You could also apply the phrase 'neat and tidy' to the 3510 Mono's internal layout, where – as with the 3510 Stereo – there's clear division between the large,

custom-made toroidal transformer and the bipolar output stage, an internal heatsink separating the two.

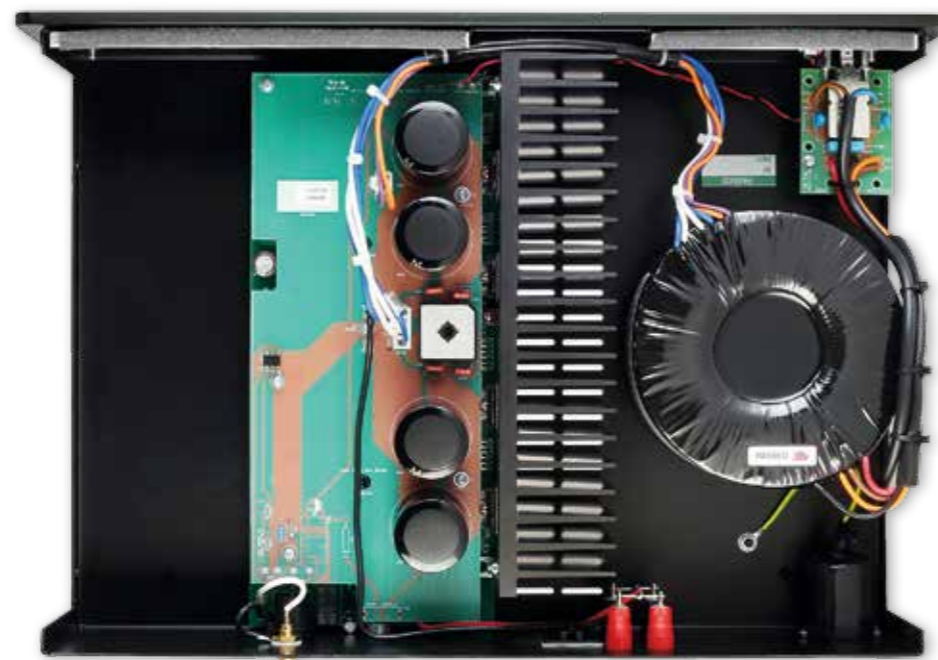
REAL DEAL

The UK manufacturer says all parts, including 'the massive smoothing capacitors', have been carefully selected to deliver an amp offering low distortion at a high power output, conforming to its 'real hi-fi for real music lovers' mission statement.

For anyone unfamiliar with the brand, the 3510 series occupies Exposure's 'upper end', sandwiched between the 2510

range (which currently consists of a lone integrated amplifier) and the 5010 lineup [HFN Nov '18], which features mono, integrated and preamplifier options. All three series employ the same full-width chassis design, leaving its compact XM models [HFN Apr '18 & Nov '19] to entice desktop audio and head-fi enthusiasts, and this means mixing and matching between

'The hush was akin to match point at Wimbledon'



ABOVE: Available in solid black or titanium finish options, the 3510 Mono(s) share the same understated, but instantly recognisable, casework of Exposure's latest amplifier series

them is encouraged. It's not unreasonable to assume an upgrade to the flagship 5010 range is next on Exposure's agenda, presumably to 5510 status, although nothing has yet been announced.

I mostly tested the mono amps with the 3510 Preamplifier, as this was also used to audition the stereo power model, and it remains an obvious partner despite its lack of a balanced output. As before I found it a potent teammate, the (now) three boxes making a slick-looking and (spoiler alert!) sweet-sounding power plant, its volume easily controlled by the preamp's remote.

PURE INSTINCT

With the 3510 Mono the spitting image of the 3510 Stereo, it comes as little surprise

that its sound performance is cut from the same cloth. The attributes that made the two-channel unit something of a star can also be found here, from the tonality and detail of its mids and highs to its near bottomless bass and expansive imaging. At the same time it manages to go one better, sounding purer, more in control, more... well, luxurious. That £2990 price for a pair starts to look like astonishing value.

A dive into female vocals with Dusty Springfield's wonderfully recorded *Dusty In Memphis* album [Rhino Atlantic R2 8214; 96kHz/24-bit] played to the 3510 Mono's strengths, its lower registers warm and sensuous, Springfield's vocal

a little more delicate. Yet Björk's 'Cocoon' [Vespertine; One Little Indian TPLP101CD] was a more icy, sterile listen, the Icelandic singer locked, without a hint of reverb, to the centre stage. That the disparate productions of these two songs both sounded utterly right is a testament to an amp with a revealing, musical character. Around Björk, the track's accompaniment

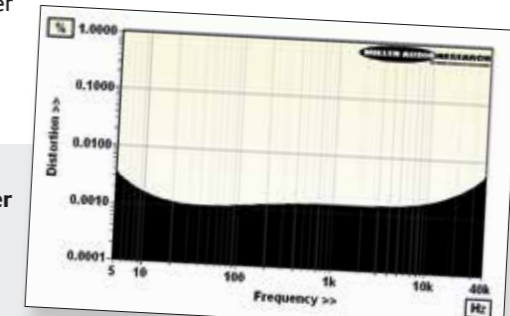
was spread far and

wide, and well separated. For reasons only she knows, this backing includes vinyl-style pops and clicks, which was as close to sounding 'noisy' as the 3510 Mono got. PM's Lab report [p65] reveals Exposure's new

design to be imperiously quiet, and this was borne out by my listening experience.

INVISIBLE TOUCH

There's a hush here akin to match point on Wimbledon's Centre Court, the music rising out of an invisible background. This made the oh-so-soft opening to 'IV Adagietto' from Gustav Mahler's Symphony No 5 [Daniel Barenboim/Chicago Symphony Orchestra; Warner Classics 51011-1046-2], with its long string notes and plump-but-gentle harp, a real pleasure. After this tender opening the level builds and



THE PERFECT PARTNER

As the 3510 Mono's 'default' partner, the 3510 Preamplifier actually predates the monoblocks reviewed here because it was launched alongside the 3510 Stereo in 2022 [HFN Nov '22]. Its design genetics go back farther still, this latest preamp taking a few cues from the earlier 3010S2 model [HFN Dec '14], albeit with a more 'relaxed' feedback regime. While the latter may explain the slight increase in distortion from 0.0002-0.0005% (3010S2; re. 0dBV, 20kHz-20kHz) to 0.001-0.0024% for the 3510 Preamplifier [see inset Graph] any 'colour' is still comparable to the reduced 0.0006-0.006% enjoyed by the 3510 Mono [see Lab Report, p65].

Nevertheless the 3510 Preamplifier has no XLR output to take full advantage of the 3510 Mono's balanced input, so it's arguable that Exposure's balanced 5010 Preamplifier [HFN Nov '18] from its older, higher tier range is the more philosophically-inclined partner! It's the better technical partner too, as it's both balanced and DC-coupled like the 3510 Mono. The 5010 Preamplifier's wide 96.4dB S/N ratio will make better use of the 3510 Mono's vastly reduced noise, just as both amplifiers are 'flat' down to sub-1Hz (in fact the 5010 is +0.5dB up at 1Hz). If you like the look of these mighty fine Monos, make sure to audition them with both the 3510 and 5010 preamplifiers. PM

EXPOSURE 3510 MONO



ABOVE: A first for Exposure's 3510 series – both RCA and balanced XLR inputs. The dual 4mm speaker cable sockets (for bi-wiring) will accommodate banana plugs only

the mood of the piece darkens, requiring the amp to draw on its power reserves to play loud and composed through my Perlisten R7t floorstanders [HFN Aug '22].

Such was the feeling of an unconstrained output that I upped the level on the 3510 Preamp without caution, enjoying a largescale but resolutely smooth performance. The 3510 Mono was equally confident hammering out Ennio Morricone's widescreen theme to Brian De Palma's gangster classic *The Untouchables* [OST, A&M Records 393 909-2], keeping hold of the timbral details of the brass and woodwind as the music soared.

LOW RIDER

So there's a refined, expressive nature to enjoy here, but it's in no way consigned to the upper reaches of the audio band. Rather, the 3510 Mono's bass handling is perhaps where it really steals a march on its stereo sibling, as it is – frankly – superb. The deep, constantly undulating lows on Alex Reece's genre-defining jungle track 'Pulp Fiction' [Metalheadz; 44.1kHz/16-bit] filled my room and stayed impactful even at a low volume.

On Aerosmith's 'Walk This Way' [*Toys In The Attic*; Columbia COL 474964 2], its aptitude was more subtly revealed by the resonance and extra body given to the isolated drumming in the introduction, and the detail uncovered in Tom Hamilton's bass guitar playing, an oft-overlooked aspect of Aerosmith's musicianship. On both this track and the same album's 'Sweet Emotion', he plays fast and routinely ventures high up the fret board, giving the amplifier plenty to pick out.

A back-to-back comparison was not possible but my listening notes from our review of the 3510 Stereo confirmed my suspicion that it was a touch more eager to let its hair

down and take you on a ride with high-energy rock music. The 3510 Mono is less inclined to jump feet first into big transients and similarly less inclined to bite off more music than it can comfortably chew. There's drive and power here, but perhaps not the same level of head-turning snap. This, plus the clean, fluid overall presentation, rendered the fast and furious metal of the title track from Lamb Of God's *Ashes Of The Wake* album [Epic 517933 2] just a little bit, well, 'safe'.

Yet there's two sides to every story, and I loved the listenability and the measured, tight feel with which the 3510 Mono rendered this groove/thrash classic. Randy Blythe's growled vocals didn't grate, the twin guitars cut through with razor-sharpness and the skill of drummer Chris Adler was on full show. The whole album flew by, as did Gorillaz' 2023 electro/hip-hop release *Cracker Island* [Parlophone 5054197213212], including collaborations with everyone from Stevie Nicks to Adelewey Omotayo. Two records of very different genres, but leaving the same final impression: Exposure's new mono amplifier is an absolute beauty! 🍷

HI-FI NEWS VERDICT

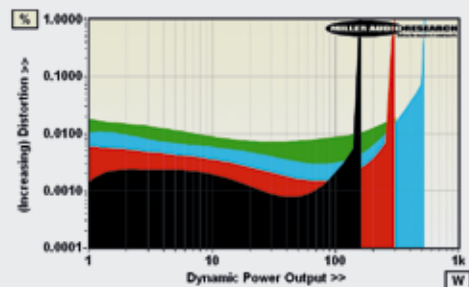
An outstanding addition to Exposure's elegant, temptingly priced 3510 range, this mono amplifier is a must-hear for fans of the British brand – and anyone shopping for a power-pusher at the price. Its sound is finely judged, with a cavernous low-end and admirable power complemented by a refined, nuanced presentation overall. The industrial design is self-effacing, but the performance is striking.

Sound Quality: 88%

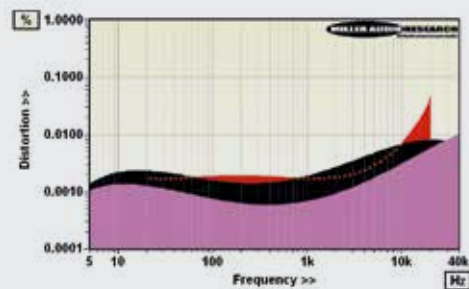


While the stereo version of the 3510 power amp [HFN Nov '22] behaves almost exactly like the power stage from Exposure's 3510 integrated [HFN Nov '21], the newer, *Mono* version of this established chassis shows a distinct evolution. Not only has Exposure embraced a fully balanced input stage but this and the power output circuits are now fully DC-coupled, the latter governed by electronic thermal and over-current protection. As a result the 3510 Mono has a response that's flat to below 1Hz (the AC-coupled 3510 Stereo rolls off below 20Hz, reaching 4Hz/-3dB) while stretching out to 20kHz/-0.4dB and 100kHz/-6.3dB. Distortion is much reduced over the 3510 Stereo, achieving 0.0005-0.0028% over its rated 100W range while the 110W-rated Stereo model hovers between 0.0025-0.008%. Versus frequency, the 0.0016-0.018% distortion recorded for the 3510 Stereo (re. 10W, 20Hz-20kHz) falls to 0.0006-0.0055% with the 3510 Mono [see Graph 2, below], but it is the reduction in noise that marks out this new version. This is a phenomenally quiet amplifier that takes the 89dB A-wtd S/N ratio of the 3510 Stereo and pulverises it with a massive 100.0dB (both re. 0dBW).

But what of power? Again, there are differences, for while the Mono and Stereo (and Integrated) both deliver 135W/8ohm and 225W/4ohm, under dynamic conditions we see the impact of that new protection regime as the Stereo's 170W, 320W, 550W and 795W (28.2A) are traded for 160W, 305W, 530W and a reduced 310W (17.6A) into 8, 4, 2 and 1ohm loads, respectively [see Graph 1]. So while the Mono chassis is cleaner, quieter and reaches down deeper, it's the Stereo model that has the raw grunt to drive the very toughest of speaker loads. PM



ABOVE: Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads. Max. current is 17.6A



ABOVE: Distortion vs. extended frequency (5Hz-40kHz; 1W/8ohm, black & 10W, pink) (20Hz-20kHz; 75W, red)

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	135W / 225W
Dynamic power (<1% THD, 8/4/2/1ohm)	160W / 305W / 530W / 310W
Output imp. (20Hz-20kHz/100kHz)	0.013-0.020ohm / 0.126ohm
Freq. response (20Hz-20kHz/100kHz)	+0.0dB to -0.4dB/-6.3dB
Input sensitivity (for 0dBW/100W)	177mV / 1777mV (balanced)
A-wtd S/N ratio (0dBW/100W)	100.0dB / 120.0dB
Distortion (20Hz-20kHz, 10W/8ohm)	0.0006-0.0055%
Power consumption (Idle/rated o/p)	14W / 179W (W standby)
Dimensions (WHD) / Weight	440x115x300mm / 12kg