PRE/POWER AMPLIFIER

Pre/power amplifier, Rated at 110W/80hn Made by: Exposure Electronics Ltd. Lancing, LIK Supplied by: Exposure Electronics Ltd Telephone: 01273 423877 Web: www.exposurehifi.com Price: £1590 (each)



Exposure 3510 pre/power

Replacing the outgoing 3010 series with trickledown experience from the costlier 5010 range, Exposure's 3510 stable just got busier with the launch of a new pre/power Review: Mark Craven Lab: Paul Miller

ad that proclaimed its lager was 'reassuringly expensive'? A slightly odd slogan, if you ask me, but it came to mind when setting up Exposure's 3510 pre/power pairing, only substituting the word 'expensive' for 'simple'. Here are two hi-fi products where simplicity has been elevated almost to an art form, reflected in the casework, choice of connections and user experience. And at £1590 a piece, these recently launched models aren't outrageously expensive.

The 3510 series occupies the UK-born margue's midrange position, above the 2510 and below the flagship 5010 models [HFN Nov '18], and replaces the 3010 line launched around a decade ago. In the 2510 camp there's currently just a single option, the £1750 Integrated Amplifier, while the 5010 series has a preamplifier (£2000) and monoblock (£5500-per-pair). The 3510 range, however, is four-strong, adding a mono power amplifier [see p24] and integrated [HFN Nov '21] to the duo tested here. The series remit is 'accuracy and power you would never expect'.

BEEF INDUSTRY

That Exposure's 3510 components, available in either black or titanium finish, look very similar to models that have come before will be no surprise to seasoned audiophiles – the company has long adhered to a classic, understated style. Indeed, this is a point of pride, Exposure saying its aim is 'a simple yet stylish system that brings your cherished music collection to life, not one that looks garish'.

Certainly, both pre and power amp are more elegant than in-your-face, with a cool lower-case brand logo and pin-prick LEDs gracing the smart fascias. They're a match in width (440mm) and depth (300mm) - the 3510 amp is bulkier, at 115mm

RIGHT: Derived from the 3010 series, the 3510 power amp features two pairs of Toshiba power transistors per side [on internal heatsink, centre] and fed from a beefy toroidal transformer [left]. Amp PCB is underneath the PSU PCB [right]

ho remembers the Stella Artois tall versus the preamp's 90mm, but still appears fairly svelte. Decent-sized feet give enough clearance to stack the two units without worrying about ventilation.

> The 3510 Stereo Power Amplifier is rated by Exposure at the same 110W/80hm as its 3510 Integrated amplifier, but both are beefier in practice [see PM's Lab Report, p53]. Inside, a

custom toroidal transformer and linear power supply accounts for much of the unit's 12kg heft, supporting a power amp based around Exposure's favoured Toshiba bipolar transistors and sprinkled with 'high-quality'

signal path capacitors. Two sets of 4mm speaker sockets are fitted [see pic, p53] for loudspeaker bi-wiring and also bi-amping should you wish to pair a 3510 Integrated with a 3510 Stereo Power Amplifier.

The 3510 Preamplifier, in its base form, features line-level inputs only. There are five in total, one labelled Phono/Aux and ready for MM/MC phono use if you plump

for one of Exposure's optional phono stage modules [see boxout, p51], the others being CD, Tuner, Aux and AV.

ON THE TRACKS

'The fast-paced

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The latter, fixed gain input bypasses the volume control should you wish to use it with the preamp output of a multichannel receiver in a home cinema

> system. Nestling right next to these are two unbalanced RCA pre outs, plus a tape loop and around terminal. Inside the 3510 Preamplifier, Exposure says

it has optimised the input switching and track layout of its PCBs to reduce crosstalk between channels and inputs. Discrete transistors are employed in the line stage, while a so-called 'hybrid' power supply, with custom toroidal transformer, has been engineered for very

low levels of residual noise. Casework is all aluminium, with extruded front panels said to help





resonance control and limit stray EMI. There's nothing on the front of the power amp but a power button to bother you, and neither is the 3510 Preamplifier especially cluttered, with selector and volume controls either side of a row of LEDs that light up to show the selected input. There's no text-heavy display to learn here, nor any amount of user tweaks. It's that simplicity thing again.

Meanwhile, the supplied remote control [see p53] will function with all Exposure products, including its small form factor XM Series, which includes a top-loading CD player/transport. The manual says you might find the product coming with either an HS3 or HS5 handset, but it's only the latter that's now being shipped. This has been redesigned and looks slightly more modern than the HS3. It's necessarily

EXPANDING EXPOSURE

Although founded in 1974, it took until the late 1990s for Exposure to embrace the notion of 'digital' and release its first CD player [HFN Mar '99]. Even now, nearly a quarter of a century later, its focus remains on analogue audio - it's only the compact XM series where you can buy a CD spinner, or a preamp and integrated with digital inputs. Nevertheless, the integrated and preamp models in the 3510 series [and 5010 preamp, HFN Nov '18], can be upgraded to support digital sources via a plug-in DAC module selling for £450. This is not new, being introduced back in 2015 for the 3010S2D integrated amplifier, and revised in 2016. Described by Exposure's designer Tony Brady as being a 'simplified' version of the Cirrus (née Wolfson) WM8742-based Exposure 2010S2 outboard DAC that debuted in 2012, it introduces playback over BNC/coaxial and USB-B inputs. The module handles PCM files up to 192kHz/24-bit, and DSD64 (via DoP) over USB. This DAC plug-in is one of three possible modular upgrades to the 3510 preamplifier, alongside MM and MC phono boards (there's no network audio/ Bluetooth option) that were first introduced in 2009. Exposure says these modules can all be retro-fitted by a 'competent DIY-er', but it's preferable to have the job done by your local dealer or specified at the point of order and factory fitted. Note however that only one plug-in can be installed at a time, so

JAZZ SINGER

you'll need to choose between vinyl and hi-res audio...

packed with buttons, but you'll only need to use it for source selection, volume and mute with the 3510 Preamplifier. One criticism is that the volume keys, which send the preamp's motorised control aently in motion, could do with being larger. Otherwise, operation of both 3510 amplifiers is a doddle, with only a brief delay while output relays kick-in from bootup to get in the way of a listening session.

While the 3510 Stereo Power Amplifier could be used separately with other system components, and I don't doubt its ability here, it's clearly intended to work with the 3510 Preamplifier. And when these join forces, there's a synergy that's delightful. The system sound combines power and aggression with vivid imaging, subtle

ABOVE: Available in solid black or titanium finish options, the 3510 preamp [top] offers an updated industrial design with logic-controlled rotary input selection and motorised volume

tonality and sweet highs. It makes you want to double-check the price tag.

For example, it takes quite a lot to make me listen to contemporary jazz with anything but a scowl, but these 3510 models have it. The Neil Cowley Trio's 'Bryce' [Touch And Flee; Naim Jazz NAIMCD206] offered so much to admire, particularly a wide-open soundstage that still had defined instrument locations, and a counterpoint between softly pressed piano keys and double bass strings struck with force. The four-minute track flew by, drowning me in textures.

Don't let the sedate aesthetics fool you - these 3510 amps took control of both my regular B&W 705 S2 standmounts, and System Audio's slim but not appreciably sensitive saxo 40 floorstanders [HFN Oct '22], mining the depths and punching through rhythms with a dynamic flair, yet not making this the star of the show.

SPINE-TINGLING

And in terms of output, I don't think I got much beyond halfway around the preamp's volume control before I risked upsetting the neighbours, all without a hint of a hardened sound. There's a little warmth to the presentation, but it's welcome rather than cloying, and combined well with the generally neutral B&W speakers.

The recent Deep Purple live album Bombay Calling: Live In '95 [Ear Music 0213995EMU] has a real 'feels like you're there' vibe, not just in the occasional fluffed note, but also the mix, which is as unpolished as they come. Yet Exposure's ↔



ABOVE: The 3510 pre [top] offers five line inputs (one for an MM/MC phono option), a tape loop and two preamp outs on RCAs. The 3510 power amp [bottom] includes RCA inputs and dual 4mm speaker cable sockets (for bi-wire applications) but are for banana plugs only, so there is no provision for bare wire or spades here

twin-set carries it off, making the fast-paced rock of 'Space Truckin'' lively and exhilarating, and with a resonant depth to the drum work. Ian Gillan's vocals are conveyed without thinness or undue bite, while the crowd noise that signals the intro of set-list favourite 'Lazy' was spine-tingling in its spread and sense of individual detail, this followed by an explosion of slick, smooth-edged lead guitar work.

REAL HONEY

But where does the power amp's prowess end and that of the preamp begin? I found out with Kate Bush's 'Babooshka' [*The Whole Story*; EMI CDP 7464142], and an A/B listen via a contemporary if more heavilyfeatured preamp. Frankly, only the Exposure Preamplifier wrestled those forensic levels of detail through the power amp without over-egging it. The sound was musical and organic even while my mind was being overloaded by the varying flavours of instrumentation – piano, hi-hat, and guitar all sounded pure and life-like.

Even better, the sumptuous tone and plump body of the fretless bass was there to savour, and Bush's



distinctive singing style, all clipped diction and soaring soprano, was as sweet as honey. Play a track with a female vocal – Nina Simone, Norah Jones – and it nails it, thanks to a midband with presence and delicate detail that performs way beyond the price tag.

LEFT: Exposure's new full system remote caters for the 3510 preamp's input selection, volume, mute and power on/off

But the 3510 pre/power is a talented all-rounder too. The jaunty pop of Sixpence None The Richer's 'Kiss Me' [eponymous; Squint Entertainment 7017032616] was pleasant, as any late '90s radio hit should be, but there was excellent weight to the bassline, and a precise separation of the layered vocals that made it way more listenable than I remembered the song to be.

A more 'audiophile' piece, Lynn Stanley's 'Route 66' cover from the *Live At Studio A* SACD [A.T.Music ATM3109], evoked the smokey, jazz club vibe and demanded I sat forward to listen in as Exposure's amps captured the track's high, airy detail. Yet whether I played hip-hop, dance music or full-blown orchestral pieces, the outcome remained the same – sheer musicality, with a wonderful sense of flow.

And can this system rock? The Stooges' grimy, punkish, massively distorted 'I Wanna Be Your Dog' [*The Stooges*; Elektra 8122-73176-2] was more than enough proof. The Exposure duo didn't back off from that legendary riff, while creating a soundstage that had Iggy's atonal vocals floating above the maelstrom. Reassuringly awesome! (b)

HI-FI NEWS VERDICT

There's not a lot going on here to catch the eye of feature counters, but that's also the point – Exposure's elegant pre/power duo is a wonderful advertisement for the 'keep it simple' ethos. The power amplifier is something of a wolf in sheep's clothing, while its preamp partner is a master of sumptuous detail and imaging. The result is pure listening pleasure at a price point that won't make you wince.

Sound Quality: 87%

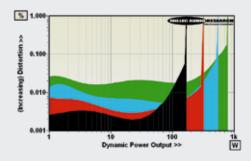
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LAB REPORT

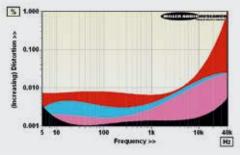
EXPOSURE 3510 PRE/POWER

Exposure's 3510 preamplifier takes some cues from the earlier 301052 model [*HFN* Dec '14] but its feedback regime is more 'relaxed'. Gain is unaltered at +17.2dB and the A-wtd S/N ratio only 1dB adrift at 93.3dB, but the 301052's very low 0.0002-0.0005% distortion is increased to 0.001-0.0024% in the newer 3510 (re. 0dBV, 20KHz-20KHz). The HF response is identical, too, at -0.5dB/20KHz and -7.4dB/100KHz, although the 3510 has a more obvious (sensible) subsonic bass roll-off of -3dB/5Hz (vs. <1Hz in the 3010S2) plus a higher 266ohm source impedance at 25Hz (vs. 160ohm). Trading slightly higher THD in the preamp's signal tuning' process is perfectly reasonable as these figures still fall within the envelope of the partnering 3510 power amp.

The latter behaves almost exactly like the power stage from Exposure's 3510 integrated [HFN Nov '21] but with a slightly higher output impedance of 0.018-0.0330hm versus 0.010-0.022ohm (20Hz-20kHz), a slightly flatter and more extended high frequency response (-0.5dB/20kHz to -9.1dB/100kHz vs. -1.0dB/20kHz and -15.8dB/100kHz) and slightly more grunt into very low impedance loads. Both the 3510 integrated and power amp are rated at 2x110W/80hm and both deliver 2x135W/80hm and 2x225W/40hm rising to 170W, 320W and 550W into 8, 4 and 20hm under dynamic conditions [see Graph 1, below]. Into the lowest 10hm load the 3510 power amp has a slight edge at 795W (28.2A) versus 760W (27.6A). Distortion has a 'U-shaped' trend vs. output, decreasing from 0.005%/1W to 0.0025%/15W before climbing gently again to 0.005%/70W and 0.008% at the rated 110W (all 1kHz/8ohm). Distortion also increases with frequency, more markedly so at higher output [see Graph 2]. PM



ABOVE: Dynamic power output versus distortion into 80hm (black trace), 40hm (red), 20hm (blue) and 10hm (green) speaker loads. Max. current is 28.2A



ABOVE: Distortion vs. freq. (preamp at 0dBV, black; power amp 1W/8ohm, blue; 10W, pink; 70W, red)

HI-FI NEWS SPECIFICATIONS

Continuous power (<1% THD, 8/4ohm)	135W / 225W
Dynamic power (<1% THD, 8/4/2/10hm)	170W / 322W / 552W / 795W
Output imp. (20Hz-20kHz, pre/power)	266-55ohm / 0.018-0.033ohm
Freq. resp. (20Hz-100kHz, pre/power)	-0.25 to -7.4dB / -0.16 to -9.1dB
Input sensitivity (for OdBV/OdBW)	139mV (pre) / 179mV (power)
A-wtd S/N ratio (re. 0dBV/0dBW)	93.3dB (pre) / 89.0dB (power)
Distortion (20Hz-20kHz, 0dBV/10W)	0.001-0.0024% / 0.0016-0.018%
Power consumption (idle/rated o/p)	18W/370W (7W, preamp)
Dimensions (WHD, Pre/Power)	440x90x300/440x115x300mm