Exposure 2510

Integrated amplifier. The good old English manners.

Exposure is an English brand whose origins date back to the early Seventies, a golden era for hi-fi when practically every household had a stereo system and listening to music was a healthy popular habit, not just the whim of a few aficionados. Along with other homegrown companies, it contributed to the trend of "essential" electronics—those with few frills, so that the entire budget could be devoted to sound performance. They embraced the "less is more" philosophy, which we might translate as "the fewer things, the better," in contrast to their mainly Japanese competitors, who instead packed their equipment with a host of extra functions, sometimes useful only for catching people's eye. On the other side of the Channel, designers had a more pragmatic outlook and strove to preserve the original signal by dispensing with all ancillary circuits not required for music reproduction, which in the worst case could even introduce noise. Over time, this approach was taken to extremes in certain esoteric audio circles, but Exposure never strayed too far down that path. It has always remained true to itself, offering quality gear at prices justified by the actual value of the components and materials employed. The 2510 integrated amplifier, the star of this review, happily carries on that tradition. It is an essential, purely analog integrated amp that delivers solid sonic performance through a well-proven circuit design.

EXPOSURE 2510
Integrated Amplifier

Italian Distributor: ASM Distribuzione, Contrada Cereo 2, 36078 Valdagno (VI). Tel. +39 335 6610736 - info@asmdistribuzione.com
List Price (including VAT): € 2,470.00

MANUFACTURER'S DECLARED SPECIFICATIONS

Output power (1 kHz): 75 watts per channel into 8 ohms. **Total harmonic distortion:** <0.015% at 1 kHz (rated power). **Frequency response:** 20 Hz to 20 kHz ±0.5 dB. **Signal-to-noise ratio:** >100 dB (A-weighted). **Channel separation:** >60 dB at 1 kHz (LINE input open); >40 dB at 20 kHz (LINE input open)

Preamplifier
Gain: +12 dB (relative to LINE input). **Frequency response:** 20 Hz to 20 kHz ±0.5 dB. **Signal-to-noise ratio:** >100 dB (A-weighted, 1 kHz/1 V output). **Channel separation at 20 kHz:** >60 dB (input closed), 40 dB (input open, AUX2). **Input sensitivity (1 kHz):** AV fixed level: 850 mV. AUX 1 (MM Phono): 2.5 mV at 1 kHz. LINE: 350 mV. **Input impedance:** AV fixed level: 10 kΩ. AUX 1 (MM Phono): 47 kΩ. LINE: 14 kΩ. **S/N ratio:** AV fixed level and LINE: >100 dB. AUX 1 (MM Phono): >72 dB. **Dimensions (H×W×D):** 9 × 44 × 30 cm (including knobs). **Net weight:** 6 kg

Design and Construction

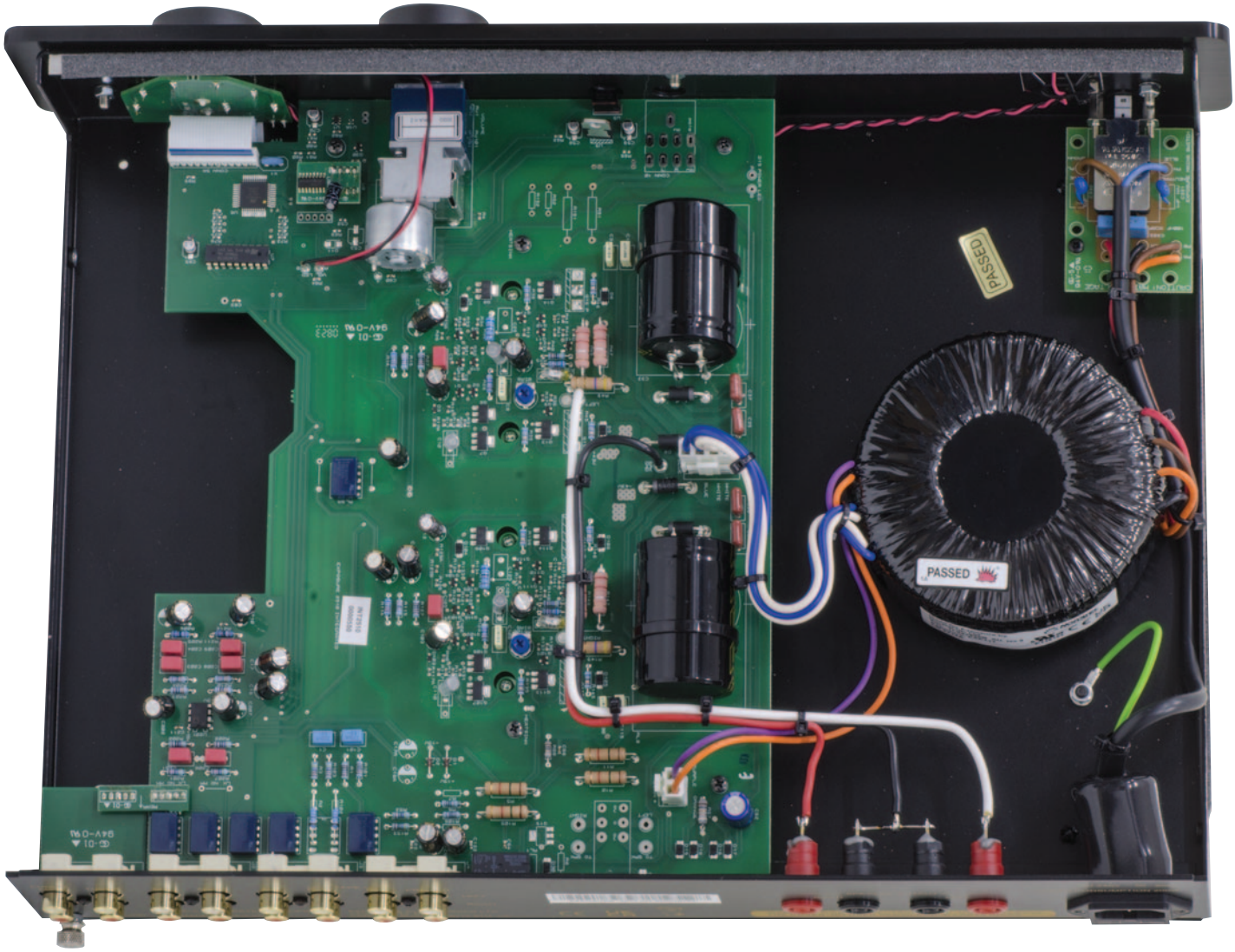
The 2510 is a compact, medium-power integrated amplifier rated at 75 watts into 8 ohms. It has the typical shape of English amplifiers in the same category, featuring a standard width and a low profile under ten centimeters. The cabinet construction is traditional, with a base chassis and a top cover in an inverted U shape, both made from folded metal sheets. The material used is good-quality aluminum about 1.5 millimeters thick, finished with a powder coating. The front panel is more refined, also in aluminum but of a thicker gauge (about half a centimeter), and it is brushed and anodized to create that familiar look of audio equipment. There are no internal reinforcement elements nor many attachment points for the cover, which is held by only four screws on the sides. One might suspect a somewhat resonant cabinet, yet the amplifier is very solid and does not vibrate at all. The way the cover slots into the front panel and the folds along the rear edge is clearly a simple solution, but in the end it makes the entire enclosure rather inert and minimally resonant. The absence of any cooling vents likely also contributes to this effect. Indeed, the chassis is completely closed, with no ventilation—something unusual for a power amp and, in many cases, even for units that perform extensive digital operations.

Looking inside, you might even think you are dealing with a preamplifier rather than an integrated, as there are no visible heat sinks or output transistors. In reality, they are hidden underneath the single, large circuit board that houses all the electronics. The power devices transfer heat to the chassis base via an aluminum bar, a solution made possible by a circuit that apparently does not dissipate much current at idle. An endoscopic inspection revealed—albeit with difficulty given the extremely tight spaces—that each channel uses a pair of complementary bipolar transistors, the 2SC1943 and 2SA5200. Beyond that, Exposure states that it employs a circuit architecture featuring a cascode configuration. This arrangement is a cornerstone of electronics, well-known and esteemed by many designers—Bartolomeo Aloia and Nelson Pass, to name just two—who have used it in numerous successful projects. It consists of cascading a transistor in a common-base setup with one in a common-emitter setup. This helps reduce the Miller effect (the parasitic ca-

The connections are sufficient for a system with various sources, including a turntable with an MM cartridge. As with other English brands, there are no binding posts for the speaker outputs, so you're encouraged to use cables terminated with banana plugs.

pacitance between the input and output of the stage), extends the bandwidth, and improves the so-called PSRR (Power Supply Rejection Ratio), i.e., the ability to reject noise from the power supply.

From a construction standpoint, the amplifier appears built to last, using a single, double-layer PCB with wide traces, thick copper, and both SMD and through-hole components. One can appreciate the care taken in choosing "audiophile-grade" parts, evident in the large toroidal transformer—potted at its center and properly manufactured by specialist Noratel. Also noteworthy are the blue Alps RK27 potentiometer, equipped with motorized action for remote volume control, and the 105°C electrolytic filter capacitors from the Italian brand Kendeil. As for the other capacitors, the Elma Silmic electrolytics deserve a mention; they visually recall the famous Rubicon Black Gate, as do the red Wima metal-film types. Overall, it



Where did the power stage go? The output transistors are located beneath the main board and dissipate heat directly through the chassis, eliminating the need for large, costly heatsinks. Components are of high quality, and the layout is clean.

is easy to see that the signal path favors discrete-component circuitry; even the rectifier bridge is formed by four substantial diodes (each bypassed by small capacitors to reduce switching noise), while the single operational amplifier—an Analog Devices OP275 that internally uses both JFET and bipolar transistors to optimize signal-to-noise ratio and speed—sits near the MM phono input.

Notes on Use and Listening

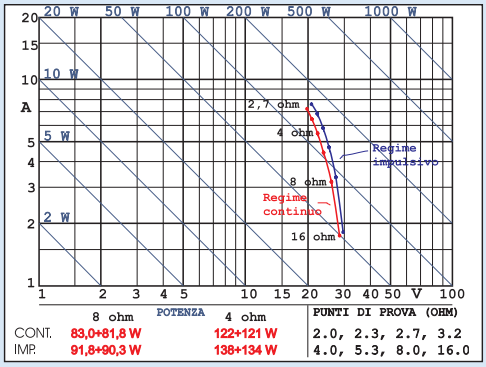
There's really not much to say in terms of operational instructions. The amplifier has no controls other than the essential volume and input selector. Very handy are the indicator lights showing which input is selected and, even more so, the LED on the volume knob itself, which lets you see the attenuation level at a glance. The switching for the five line inputs plus MM phono is handled by relays. As for connections, it's worth noting that, unlike the vast majority of amplifiers, this unit does not employ tightening binding posts but rather 6 mm banana sockets. In practice, you must use cables terminated with banana plugs, unless you resort to adapters—those banana plugs with a screw clamp that can accept either spade lugs or bare

Exposure 2510 Integrated Amplifier

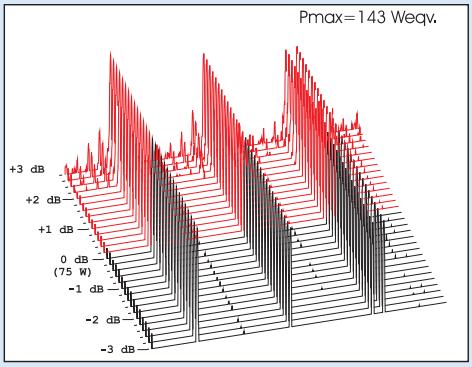
MEASURED CHARACTERISTICS

OUTPUT POWER

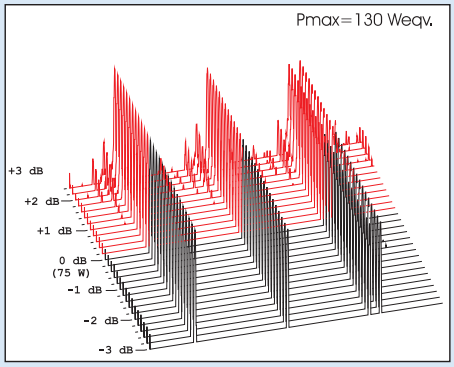
LIMIT LOAD CHARACTERISTIC



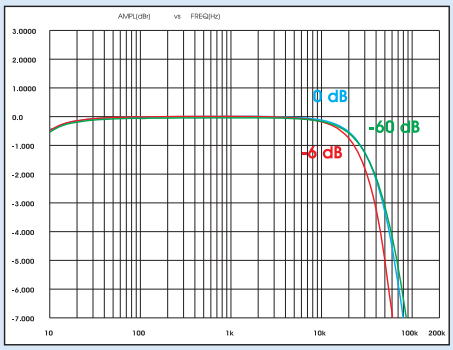
TRITIM IN IMPULSIVE MODE
Inductive Load 8 Ω / +60°



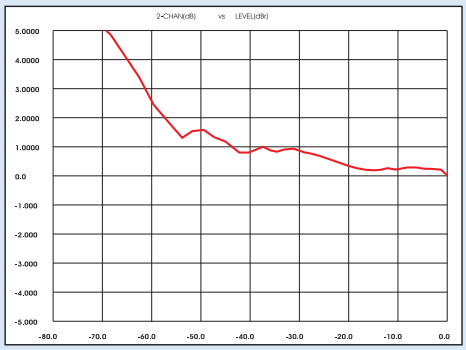
TRITIM IN IMPULSIVE MODE
Capacitive Load 8 Ω / –60°



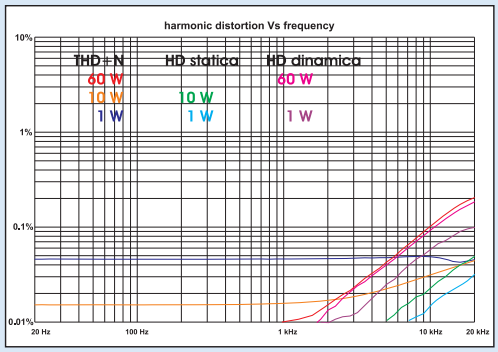
FREQUENCY RESPONSE
(at 2.83 V into 8 Ω)



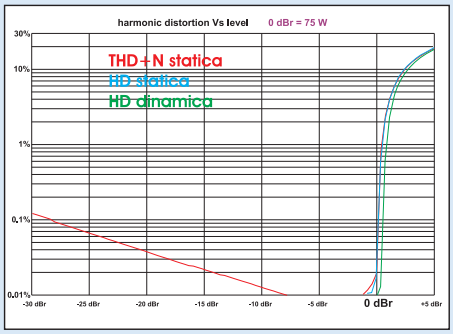
CHANNEL IMBALANCE
(as a function of volume attenuation from 0 to –80 dB)



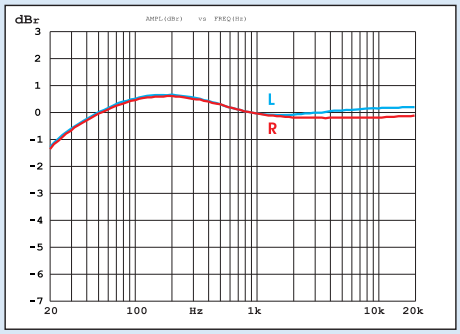
FREQUENCY/DISTORTION PLOTS
(output powers of 1, 10, and 60 watts into 8 Ω)



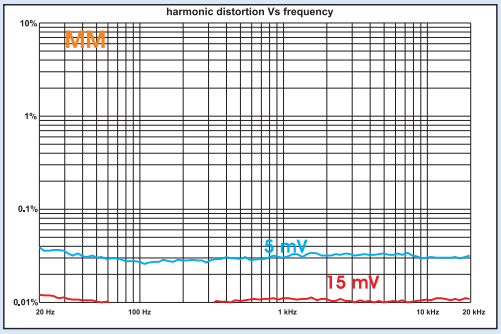
POWER/DISTORTION PLOTS
(0 dB corresponds to 75 watts into 8 Ω)



FREQUENCY RESPONSE
(MM phono)



FREQUENCY/DISTORTION PLOTS FOR MM PHONO
(test signal levels of 5 and 15 mV at 1 kHz)



Damping Factor into 8 Ω:
288 @ 100 Hz; **289** @ 1 kHz; **311** @ 10 kHz; **253** @ 20 kHz

Slew Rate into 8 Ω: Rise 10 V/µs, Fall 13 V/µs

Output Impedance
Rec: 499 ohm
Pre: 95 ohm

CD INPUT
Impedance: 18 kΩ / 270 pF. **Sensitivity:** 384 mV for 75 W into 8 Ω. **A-weighted noise voltage referenced to input (600 Ω load):** 1.25 µV. **A-weighted S/N ratio (600 Ω load):** 108.4 dB. **Maximum input voltage at 1 kHz:** >26.66 V

MM INPUT
Impedance: 47 kΩ / 160 pF. **Sensitivity:** 2.77 mV for 75 W into 8 Ω. **A-weighted noise voltage referenced to input (600 Ω load):** 0.41 µV. **A-weighted S/N ratio (600 Ω load):** 81.6 dB. **Maximum input voltage at 1 kHz:** 72 mV

wire when needed. Signal connections are standard, and the grounding post for the phono input looks solid. Considering its traditional design approach, the presence of a tape out is unsurprising, and it's certainly advantageous to have a pre out as well.

From a functional standpoint, the 2510 produces very little heat despite its closed enclosure—on par with a Class D amp—making it ideal for installation in a cabinet or for muggy summer listening sessions. Its fully enclosed chassis also protects the circuit board from dust, which would eventually penetrate through ventilation holes if they were present.

In action, this "little Brit" delivers a concrete, tonally believable sound without any hint of sensationalism, especially in the high frequencies, where it remains consistently composed. It might sound clichéd to say it exhibits all the hallmarks of "English sound," but that's precisely the case. It's musical, has a lovely midrange, and offers a surprisingly robust low end—far more than its rated power or measurements might suggest. The lower registers stay full even at modest volume levels, and you can still enjoy a satisfying punch on drums or double bass at nighttime listening volumes. The midrange is natural and "rounded," working in harmony with the highs which, as noted, do not draw undue attention to themselves. As a result, the 2510 stays accurate without dissecting detail at all costs. A direct comparison to a Japanese reference amplifier (though in a different price bracket) was enlightening, highlighting two divergent takes on resolution. They seem poles apart, almost as if rekindling the perennial debate between these two "schools." The English design does not force contrast; rather, it offers a certain benevolence which, without masking anything, helps us tolerate less-than-stellar recordings. By the same token, sometimes vocals or treble nuances might come across as slightly pulled back, even though they remain firmly present and stable in the soundstage. It's a clear tonal choice that often pays off. The instruments I most enjoyed were rock and jazz staples like drums, electric guitar, and bass, and in orchestral settings, percussion, strings, double bass, cello, trombones—and piano as well. Speaking of rock and jazz, certain live recordings were particularly fun, not because of raw volume output, but for the honest atmosphere the 2510 created.

The amplifier's inherent quality also shines through in its impressive ability to build a three-dimensional soundstage. The 2510 clearly delineates every sonic layer, placing instruments or virtual sources distinctly in both width and depth. The tonal traits mentioned earlier seem slightly more pronounced when using the phono input. Listening remains pleasing and solid, but there's a sense that pairing the right cartridge is key; otherwise, the result could edge toward being a bit too closed-in or veiled.

There appear to be no speaker-matching issues. During testing, the 2510 had no trouble driving floorstanding speakers, matching them nicely in terms of tonal balance. It also worked well with the monitor speakers on hand. Overall, one can easily imagine this amplifier as an ideal choice for medium or smaller rooms, especially with high-quality standmount speakers. Such a setup would undoubtedly yield excellent results.

Conclusions

An amplifier that refreshes the glory of the British school through an "old-fashioned" approach in the most positive sense. It's built in a tradition that remains a benchmark for many audiophiles seeking musicality and listening pleasure. The 2510 is essential, yet what it provides will satisfy anyone who appreciates a well-structured sound in smaller domestic spaces. It's solidly built, carries the charm of classic Brit sound, and doesn't cost a fortune. In short, as the English magazines used to say, highly recommended.

Andrea Allegri

Exposure specifies the output power only into an 8-ohm load—75 watts per channel—which our "Load Limit Characteristic" (limit-load characteristic) confirms with a small margin. It also shows that the amplifier's power delivery rises fairly steeply as the load impedance decreases, up to a limit of 2.7 ohms. Below this threshold, the protection circuitry intervenes for both continuous and pulsed signals. Since it successfully passes both **TRITIM** tests on a reactive load, 2.7 ohms effectively becomes the minimum impedance of any speakers connected to the 2510.
The **distortion curves as a function of power and frequency** point to a classic design, with steep saturation and a very low residual at low and mid frequencies. It does climb a bit under dynamic conditions but remains minimal overall and shows no crossover nonlinearities.
The internal impedance is excellent—low and relatively stable across the frequency range—making it suitable for bi-wiring, though the output connectors themselves are not especially conducive to this.
The **power stage's frequency response** is very "British" in the classic sense: extended to just the right degree, with minimal roll-off at the limits of audibility (-0.2 dB at 20 Hz and -0.6 dB at 20 kHz) and little dependence on the gain set by the volume knob. The corresponding potentiometer maintains channel balance within 1 dB down to 43 dB of total attenuation (meaning that any minor imbalance would only be noticeable at very low listening levels).
As for the **MM phono input**—specifically, the accuracy of its RIAA de-emphasis network—the high-frequency range is very linear, accompanied by a slight emphasis in the mid-bass region and a gentle roll-off below 150 Hz. These are musically negligible characteristics, especially in the context of typical LP content. **Noise** measurements are particularly impressive, not only for the already very low—and very linearly distorting—MM phono stage, but especially for the line inputs, which achieve an outstanding **108 dB A-weighted signal-to-noise ratio**. The line inputs are virtually unsaturable, easily **handling the maximum** 26.66 Vrms output of our test signal generator. Adding an external phono stage, therefore, poses no compatibility issues.

Fabrizio Montanucci

The remote control is a new design compared to previous series—multifunctional so it can also operate other devices from the same manufacturer. Its build quality is acceptable.