

EQUIPMENT REPORT

Cambridge Graduates

Cambridge Azur 840E Preamplifier and 840W Power Amplifier

Neil Gader

It's serious business striving to be taken seriously. Even when you've been producing exceptional electronics for years, as Cambridge Audio has, the moniker "value high-end" is a stigma that tends to stick. But some companies refuse the pigeonhole and won't submit to a slot in the pecking order. Cambridge Audio is one such company. And to substantiate this claim, its engineers hereby submit into evidence the Azur 840E preamplifier and 840W power amplifier—separates that make no apologies and stand ready to silence the snobs.

By any high-end standard, the Azur 840E and its 200Wpc partner, the 840W, are elegantly and conservatively styled—appropriate to the segment they aim to compete in. The acoustically damped casework is absolutely first-rate with a heavy 7mm front panel of extruded aluminum and aluminum side-panels. Every finished edge is satin smooth, with tight seams corner to corner. In the case of the 840W, the designers implemented some creative crosshatched venting to aid the amplifier's thermal efficiency. Substantial heat sinking lurks beneath.



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The front panel of the 840E preamp is dominated by an LCD display (adjustable for intensity), which is flanked on each side by a vertical row of input buttons. The large volume-control knob is in actuality an attenuator-type. It's a premium resistor-ladder design with 1dB increments and is relay-based with gold-plated contacts—far more precise and stable over the long run than the typical wiper-style volume pot. This mechanism isn't quiet. It ratchets up and down with the clatter of a socket wrench but at the end of the day its precision is reassuring. Via the "Mode" button there are treble and bass and balance controls, but this circuitry can be bypassed with a push of the "Direct" button. In another nod to pushing the high end forward, Cambridge Audio decided to forgo the ubiquitous op-amps normally used for driving low-level gain stages and designed and manufactured its own proprietary TerraPin (signifying ten-pin) discrete modules.

The 840W amplifier uses Cambridge Audio's proprietary XD topology—the object of a pending patent. This circuit enables the amplifier to run in Class A at low levels and transition to an "enhanced" Class B without the typical crossover distortion normally associated with Class AB designs. In heat output it splits the difference between Class A and AB, which is to say it verges on the uncomfortable to the touch. Its carbon footprint at idle is 180W, not bad when you consider the Pass Labs INT-150 idles at 225W.

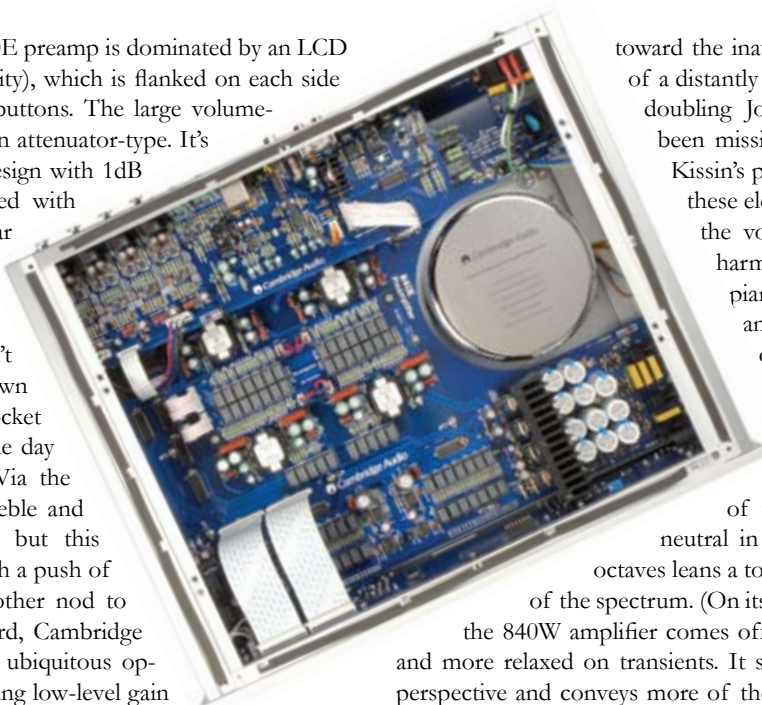
The Sound of One Hand Clapping

So often first impressions invariably set the table for the entire meal. Which is to say there is generally an aspect or two of performance that immediately speaks to me. And so it was with the Azur components. They are exceedingly, even weirdly, quiet and settled. In the absence of music it is a quality felt as much as heard, like the texture (and this is crucial) of an *unbroken* curtain of ambience and atmosphere hanging over the venue itself. I heard this during cellist Pieter Wispelwey's *Kol Nidre* [Channel Classics, SACD] and then in the opening moments of Shelby Lynne's "How Can I Be Sure" [Lost Highway]. Once this was established in my mind, other virtues seemed to fall like dominoes. Like the Hubble telescope, the focus of the 840E/W on images is decisive and crystalline deep. There's a wealth of low-level resolving power, easily heard when I listened to Billy Joel's "Angry Young Man," which was recorded live at Carnegie Hall in 1977. What's remarkable about the track—beyond the obvious virtuoso musicianship—is the hand clapping of the audience. The complexity of low-level resolution radiating from the responsive crowd could easily be overwhelmed by the high-octane output of the musicians on the stage, but these electronics capture every micro-dynamic nuance. Similarly there's a passage towards the end of Norah Jones' "Sinking Soon" [Blue Note] where she is joined by a second voice at a level so low that it veers

toward the inaudible. It has the character of a distantly mewling cat, but it is clearly doubling Jones' voice. I'd previously been missing it. And during Evgeny Kissin's performance of "The Lark" these electronics also eerily suggest the voluminous, lower-midrange harmonic weight of a grand piano on stage, including an accurate sense of its orientation to the audience.

This is performance that would be impressive at any price.

The sonic character of the 840E/840W combo is neutral in tonality, but in the upper octaves leans a touch towards the cooler end of the spectrum. (On its own, apart from the 840E, the 840W amplifier comes off as a bit darker, bloomier, and more relaxed on transients. It settles back a row or so in perspective and conveys more of the familiar and buttery pure Class A vibe.) Their collective attention to detail, wide full-blown soundstage, and micro-management of dynamics is unwavering, but they show less initiative reproducing the physical dimensions of midrange images or the liquidity of a violin or the air in a soprano voice. Transient speed was no problem but during a song like Jennifer Warnes' "If It Be Your Will" I felt a hint of hardness creeping in as Warnes' transitioned into her head tones. On the other hand, bass response is exceptional. The combo holds onto piano sustains and decays in an utterly natural way—an issue that also speaks to the general low degree of electronic background noise, which permits more of the decay to be heard.



SPECS & PRICING

AZUR 840E

Frequency Response: 10Hz-100kHz +/-0.1dB
Inputs: Two balanced XLR, seven unbalanced RCA, one record input
Outputs: One balanced pre-out, one unbalanced pre-out, subwoofer out, two record out
Dimensions: 4.5" x 16.9" x 15.2"
Weight: 19.1 lbs.
Price: \$1699

AZUR 840W

Power Output: 200Wpc @ 8 ohms; 500W @ 8 ohms (bridged mode)
Frequency Response: 5Hz-80kHz -1dB
Inputs: One pair balanced, one pair unbalanced
Dimensions: 5.8" x 16.9" x 14.4"
Weight: 33 lbs.
Price: \$2499

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BATTLE STATIONS

The Cambridge Audio Azur 840E and 840W are a marriage of old guard audiophile sensibilities and the hardscrabble lessons gleaned from the home-theater experience—specifically the demands of enhanced connectivity and custom-installation priorities. For purists, this duo can be connected in the traditional fashion—find the appropriate input and give the volume control a twist. But the 840E also allows tailoring the preamp to individual preferences via the system-configuration menu found when toggling through the “Mode” feature. Items like input naming, input gain trim, display, and volume ramping are there for optimizing. Also the level for any input can be set at fixed gain for front L/R speaker integration into a multichannel system using an AV controller. Direct settings can also be specified for each input. The back panel houses eight inputs, and inputs One and Two can be toggle-switched between balanced XLR and unbalanced RCA. There are both balanced and unbalanced pre-outs to an amplifier. And don't forget the front-panel 1/4" headphone jack.

The level of connectivity that the Azur 840E and 840W offers reminds us why separates are sometimes the only way to fly. With four IR outputs, 12V triggers, and an IR emitter at the ready, and the availability of optional Cambridge Incognito A-Bus keypads and power supply, Cambridge has taken all the guesswork out of the nightmare scenario known as multi-room/custom-install integration. Power-synching is available between units via the control bus I/O aboard each component and there's an RS232C port for external control of the preamp and software updates from Cambridge personnel.

The Azur 840W uses Class XD topology, a Cambridge exclusive. “XD” stands for Crossover Displacement. In a white paper describing the technology Cambridge writes that XD “enables the smoothest possible transition between single-ended Class A and push-pull Class B for dramatically reduced distortion,” significantly below typical Class B level or Class AB. And Cambridge adds that there's also a wider range of Class A before crossing over to Class B operation. In essence it combines the linearity of Class A and the economy of an optimized Class B. The 840W is switchable between stereo and mono by way of biamped or bridged-mode switches. In bridged-mono, the 840W outputs a fire-breathing 500W. Both balanced and unbalanced inputs have loop outputs to permit two or more amps to be used as monoblocs or in biamped operation. On the back panel, twin sets of heavy-duty speaker terminals are installed. Additionally, the Azur 840W also features separate transformer secondaries for the left and right channels, and twin rectifier and separate PSUs (power supply units) for dual-mono operation. No doubt about it, Cambridge Audio clearly has its eye set on powering audiophile systems at the very highest levels of the high end. **NG**



As fine a system as the 840E and 840W make, it's the amplifier that comes up the stronger of the two. It has more upper-frequency bloom and air than the 840E. Its personality is bolder and more robust. Images improve in dimensionality and the representation of space immediately around them. For most solid-state amplifiers tonal neutrality is by and large a done deal. However, like every exceptional amplifier I've encountered it's the little things that the 840W does that loom so large. For example, the new Sonus Faber Cremona M (\$12,800/pr.) is not a difficult speaker to drive, but its superior resolution makes it a tough speaker to exact full potential from. It can go deep, but with the wrong amp it can sound loose and a little imprecise. There are levels of beauty that the Cremona doesn't reveal with just any amplifier—especially in the lower mids and bass range and on top. And it's not merely all-out extension that the 840W improves; it's more about the inner dynamic life of music. The tiny dynamic shifts of an orchestra, the differences between a *mezzo-forte* and a *fortissimo*, for example. When it reproduced Sting's plummeting fretless bass during “Tea in the Sahara” [A&M SACD], it found another gear, and I mean a really *low* gear—a seismic groan that I'd never heard out of the Cremona's before. In terms of timbre and control it came down on the Cremona like a drill sergeant—the entirety of the low-end suddenly stood at attention, complex passages were defined, harmonics focused, coherence tightened, and dynamics spring-loaded.

By any standard the Cambridge Audio Azur 840E and 840W rank as excellent components and at roughly \$4200, a supernatural deal. They should only further complicate the debate about what defines “serious” as opposed to “value” audio. However, there should be no doubt which side of this debate I come down on. Do the superstars of the industry have anything to fear? Let me put it this way—I wouldn't suggest they ignore the footsteps coming up behind them. This pair from Cambridge has graduated with honors and is ready to take on the world. **TAS**