

Cambridge Audio Azur 840A Class XD Integrated Amplifier

Playing above the grade

Chris Martens



The Azur 840A is the most flexible, most powerful, and best-sounding integrated amplifier that the British firm Cambridge Audio has ever built, and it even introduces a new “Class XD” mode of amplifier operation that I discuss in the sidebar, below. Briefly, Cambridge’s Class XD circuit leverages the strengths of Class A and B amplification in an innovative way, yielding lower distortion than is typically produced by traditional Class AB amplifiers. Interestingly, the 840A is also a “multizone” integrated amplifier, in that it provides dual A-BUS interfaces that can send audio signals via CAT5 wiring to two remote listening zones. The 840A puts out a feisty 120Wpc, and sells for \$1499.

The Azur 840A incorporates numerous touches that purist audiophiles will appreciate. For example, the amplifier provides separate power supplies for its preamplifier and power amplifier sections, and offers eight user-nameable analog inputs—including one that supports both single-ended and balanced input jacks. Any of the amplifier’s inputs can be locked to fixed gain levels, making the Cambridge ideal for home-theater pass-through applications. Switch-selectable balance and tone controls are provided, as is a front-panel “Direct” control that ensures the cleanest signal path possible. Finally, to complement its low-distortion circuitry, the 840A controls output levels via a relay-

controlled precision-matched resistor ladder.

Over time, I’ve heard a number of small British integrated amplifiers that to some degree fit the stereotype of sounding warm, softly focused, and polite. The 840A is not among them. Right out of the box, the 840A exhibited a big bold sound characterized by terrific midrange definition and detail, and by clean powerful bass. By comparison, the mid-priced YBA Designs YA201 amplifier I reviewed in Issue 165 was more of a contemplative sonic introvert, where

the ebullient Cambridge puts its lively and engaging sound right out in the open for all to hear. In short, the moderately priced 840A signals from the outset that it wants to play with the big boys. And in many ways it can.

One important way in which the 840A seems to play above its pay grade is in carving the leading edges of transients with the sort of energy and definition I normally associate with more expensive amplifiers. A multifaceted musical example will help to illustrate this point. I put on Long John Hunter’s “Let’s

Specs & Pricing

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Power output: 120 Wpc into 8 ohms, 200 Wpc into 4 ohms

Inputs: Eight single-ended stereo analog (RCA, one as Tape Monitor), one balanced stereo analog (XLR)

Outputs: Two single-ended stereo analog (RCA, one as Tape Out), two A-BUS/Cambridge Incognito multi-zone audio (CAT5)

Dimensions: 16.9" x 4.5" x 15.2"

Weight: 33 lbs.

Price: \$1499

ASSOCIATED EQUIPMENT

Rega Planet CD player with Musical Fidelity X-PSU, X-DAC v3, and X-10 v3 tube buffer; Musical Fidelity Tri-Vista SACD player; Wilson Benesch Full Circle analog system; Musical Surroundings Phenomena phonostage; NuForce P-8 preamplifier; NuForce Reference 9SE and Spectron Musician III power amplifiers; Paradigm Reference Signature S8 and Mirage OMD-28 loudspeakers; Furutech Alpha Reference interconnect, speaker, and power cables; RGPC power conditioner

Set The Time” from the *Untapped Blues Festival 2004 Live* album [Bluestopia], and I came away marveling at how vividly alive the 840A made Hunter and his band sound. If you enjoy listening to (or playing) electric guitar at moderate volume levels, then you already know how sound seems to erupt from the guitar amplifier a split second after the pick sweeps past the guitar strings. In fact, some notes can launch so hard that you might initially expect the sound to become unpleasantly loud. But when recording and playback levels are set just so, what actually happens is that individual notes cry out with gripping visceral authority, yet without ever reaching painful levels. **This punchy evocative sound is exactly what the 840A achieved in reproducing Hunter’s guitar solos on “Let’s Set The Time.”**

Similarly, the 840A did a spectacular job with the sound of keyboardist Tommy Washington’s electric organ. If you listen closely, you’ll observe that some electric organs (typically older Hammonds) produce a soft slightly scratchy-sounding “click” just as their keys are depressed. These clicks might actually be indicative of wear in the instrument, but many experienced blues keyboardists—Washington among them—use those key clicks to give the notes in fast-paced runs a bit more kick and definition. **The Cambridge amp nailed the powerful sound of the organ, clicks and all, and it perfectly caught the eerie shimmer of the Leslie rotary speaker used to give the organ its voice** (Leslie speakers feature a rotating horn tweeter whose sweep speed can be controlled by a foot pedal).

The Cambridge took propulsive bass lines in stride

Finally, the Cambridge did a gutsy job with the sound of bassist Tracy Mortimer’s electric bass, which sounds clean, clear, and absolutely thunderous on the *Untapped Blues Festival* disc. Even though four-string basses don’t reach down into true low-bass territory they are still difficult to reproduce, partly because they have deceptively complex timbres, and partly because they impose abrupt large-scale power demands on amplifiers. The trick is that amplifiers must answer those demands without losing composure or detail in the midrange and treble regions. **Even when I cranked up “Let’s Set The Time” to quite invigorating volume levels, the Cambridge took Mortimer’s propulsive bass lines in stride while keeping the rest of the band in sharp focus.**

About Class XD Amplification

Traditional Class AB amplifiers are thought to offer a good compromise between the sonic purity of Class A amplifiers, which eliminate so-called “crossover notch” distortion, and the efficiency of Class B amplifiers. But according to Cambridge, at mid-to-high output levels amplifiers operating in Class AB mode typically produce *higher levels of distortion* than pure Class B amplifiers would.

In theory, then, an ideal solution would be an amplifier that could make a clear-cut transition from pure Class A operation at low power levels to pure Class B operation at higher power levels—with no intermediate Class AB operation in between. This, in a nutshell, is exactly what Cambridge Audio’s Class XD amplifier circuit allows. The result is an efficient, cool-running amplifier that exhibits very low distortion at both low and high output levels.

Cambridge Audio Web site offers an in-depth white paper that discusses the concepts underlying Class XD amplification, and that traces the evolution of the circuit used in the 840A amplifier. The paper also gives fascinating insights into the design process, and is highly recommended for technically minded TAS readers. CM



Thus far, we’ve focused on the 840A’s strengths, which are wonderful and exciting, but we should also discuss two areas where the amplifier’s performance is good, but not great. First, the amplifier’s treble response, though clear and well-detailed, is shelved downward a bit, at least relative to the treble regions of some of the more transparent-sounding power amplifiers I’ve heard of late (e.g., the Spectron Musician III or the NuForce Reference 9 Special Edition—both of which cost far more than the Cambridge does). This doesn’t mean the 840A’s highs ever sound “soft” or diffuse, but rather that they are just slightly recessed in the mix.

Second, the 840A fails to achieve the sculptural three-dimensionality that competing integrated amplifiers such as the YBA Designs YA201 provide. Though I would normally call the Cambridge a very detailed amplifier, it tends—for whatever reason—to downplay small sonic cues that can reveal the acoustics of recording venues, and the size, depth and body of instruments. You can maximize the 840A’s performance potential by equipping the amplifier with a good aftermarket power

cord (e.g., the Furutech Alpha Reference) and by pairing it with speakers that are inherently strong soundstagers (e.g., the Mirage OMD-28s). Even so, the French-designed YA201 does a better job of conveying depth and dimensionality. **Listening to the 840A is like gazing at a high-resolution photograph**, while hearing the YA201 is more like viewing a sculptural object. Good though the photograph may be it never conveys the substance and smooth, continuous shadow detail that the sculpture possesses.

The Azur 840A is beautifully made, and its power, clarity, detail, and life-like dynamics make it a blast to hear. For those ready to embrace the world of multi-zone audio the Cambridge’s flexibility may also prove irresistible. In the areas of dead-neutral treble response and of holographic three-dimensionality, the 840A can be outperformed, but only—in my experience—by amplifiers that cost more. Even taking minor shortcomings into account, **I regard the 840A as one of the finest mid-priced integrated amplifiers I’ve heard; it consistently conveys the vitality and dynamism of live music.** TAS