

## Cambridge Audio azur 840A Class XD

Stereo Integrated Amplifier

By Chris Martens



**T**he 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 (see the sidebar). What is more, it also serves as a “multizone” integrated amplifier, providing dual A-BUS interfaces that can send audio signals via CAT5 wiring to two remote listening zones within the house. The 840A puts out a feisty 120 Wpc, and sells for E 1399.

The azur 840A incorporates numerous detail touches that purists 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 (RCA) and balanced (XLR) 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-mounted Direct control that ensures the purest signal path possible. Finally, to complement its low-distortion circuitry, the 840A controls volume levels via a relay-controlled, precision matched resistor ladder.

Over time, I’ve heard many British integrated amplifiers that fit the stereotype of sounding warm, softly focused, and polite. The 840A is not among them. Right out of the box, it exhibited a big, bold sound characterized by terrific midrange definition and detail, and clean, powerful bass. Where competing amplifiers such as the excellent YBA Designs YA201 featured in TPV 73 can sound a bit like contemplative sonic introverts, the ebullient Cambridge puts its lively, engaging sound right out in the open for all to hear. In short, the reasonably 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 plays above its pay grade is in carving the leading edges of transients with the sort of energy and definition normally associated with more expensive amplifiers. A multi-faceted musical example will help illustrate this point. I put on Long John Hunter’s “Let’s Set the Time” from the *Untapped Blues Festival 2004 Live* album [Bluestopia], and I came away marveling at how energetic and 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 guitar amplifiers a

### About Class XD amplification

Traditional Class A/B 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 a little known fact is that, at mid-to-high output levels, amplifiers operating in Class A/B 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 A/B-mode 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 at high output levels.

The Cambridge Audio Web site (see URL, below) 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 TPV readers.

split second after the pick sweeps past the guitar strings. In fact, some notes launch so hard that you expect them to become unpleasantly loud. **But when recording and playback levels are set just right, the individual notes instead cry out with visceral authority, yet without 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, scratchy "click" just as their keys are depressed. These clicks might actually be indicative of excess wear in the instrument, but experienced blues keyboardists like Washington use them 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).**

Finally, the Cambridge did a gutsy job with the sound of Tracy Mortimer's electric bass, which sounds clean, clear, and 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. **But even when I cranked "Let's Set the Time" up to very invigorating levels, the Cambridge took Mortimer's chunky, propulsive bass lines in stride while keeping the rest of the band in sharp focus.**

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. The amplifier's treble response though clear and well-detailed, is shelved downward a bit, at least relative to some of the more transparent-sounding ultra high-end amplifiers I've heard. But don't get me wrong. The 840A's highs never sound "soft" or diffuse; it's just that they are very slightly recessed in the mix.

that competing amplifiers such as the YBA Designs YA201 provide. By A/V standards the Cambridge is an extremely detailed amplifier, but even so it can downplay small sonic cues that could reveal the acoustics of recording venues, or suggest the physical presence of instruments or vocalists. Listening to the 840A is like gazing at a high-resolution photograph.

To help give the 840A improved dimensionality, try equipping it with a good aftermarket power cord (yes, they can make a difference) and make a point of pairing it with speakers that are inherently strong soundstagers (e.g., NHT's Classic Fours).

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 brave new world of multizone 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. **But 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. TPV**

## Specifications

### Cambridge Audio 840A integrated amplifier

- Power output: 120Wpc @ 8 ohms, 200Wpc @ 4 ohms
- Number and type of inputs: Eight single-ended stereo analog (RCA, one as Tape Monitor), one balanced stereo analog (XLR).
- Number and type of outputs: Two single-ended stereo analog (RCA, one as Tape Out), two A-BUS/Cambridge Incognito multizone audio (CAT5)
- Dimensions: 4.5" x 16.9" x 15.2"
- Weight: 33 lbs.

## Manufacturer Information

Cambridge Audio  
[cambridgeaudio.com](http://cambridgeaudio.com)

## Distributor Information

Audio Plus Services  
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