

Playback

HEADPHONE

BUYER'S GUIDE

Sponsored by NuForce & Shure



IN-EAR HEADPHONES

Overview & What to Look For

Models \$120 and Below

[Apple In-Ear Headphone](#)

[Denon AH-C551](#)

[NuForce NE-7M](#)

[NuForce NE-8](#)

[Sennheiser CX300 \(now CX300 II\)](#)

[Skullcandy Titan](#)

[Skullcandy FMJ 11mm](#)

Models Between \$120 and \$300

[Beats By Dr. Dre Tour](#)

[Denon AH-C700 \(now AH-C751\)](#)

[Etymotic Wireless ETY8](#)

[Etymotic ER4P](#)

[Future Sonics Atrio](#)

[Klipsch Custom 3](#)

[Monster Cable Turbines](#)

[Phiaton PS 200](#)

[Shure SE310](#)

[Ultimate Ears Super.fi 5PRO](#)

Models \$300 and Up

[Klipsch Image](#)

[Sennheiser IE7](#)

[Shure SE420](#)

[Shure SE530](#)

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NOISE-CANCELLING HEADPHONES

Overview & What to Look For

[Audio-Technica ATH-ANC7 \(now ATH-ANC7b\)](#)

[Beats By Dr. Dre Studio](#)

[Bose QuietComfort2](#)

[Creative Labs Aurvana X-Fi](#)

[Denon ATH-NC732](#)

[JVC HA-NC250](#)

[Sennheiser PX 450](#)

[Sony MDR-NC500D](#)

HIGH PERFORMANCE HEADPHONES

Overview & What to Look For

Models \$500 and Below

[Audio-Technica ATH-A700](#)

[Beyer Dynamics DT-880PRO](#)

[Denon AH-D1001](#)

[Grado RS2](#)

[Sennheiser HD650](#)

[Shure SRH840](#)

[Ultrasone PRO 2500](#)

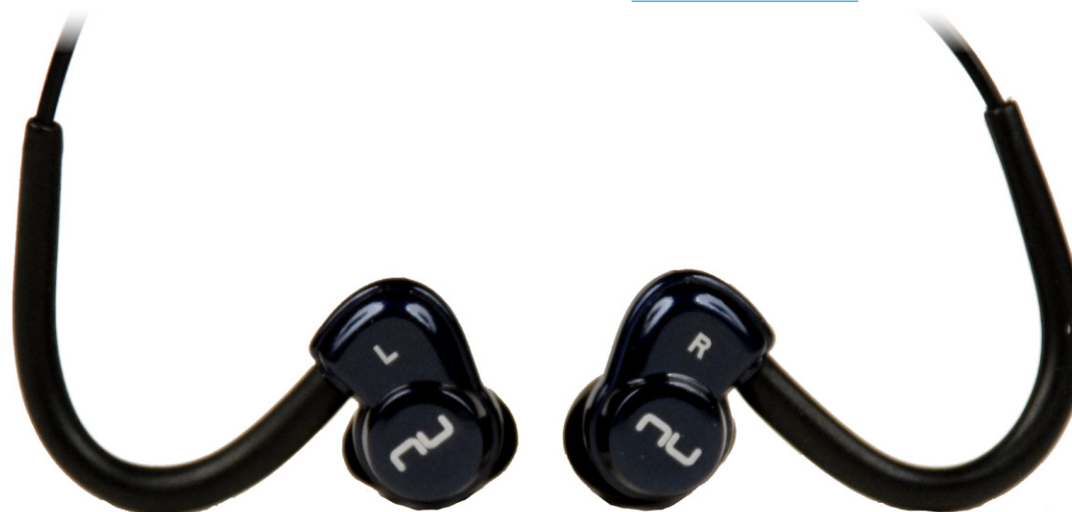
Models Over \$500

[Denon AH-D5000](#)

[Grado GS1000](#)

[Sennheiser HD 800](#)

[Ultrasone Edition 8](#)



Make it sound **REAL**



“ SUPERIOR SOUND
FOR YOUR MOBILE DEVICE
AND COMPUTER ”

nu force Icon Mobile

The NuForce® Icon Mobile™, along with its accessories, allows the user to obtain better sound quality from mobile music players, smart phones and personal computers. The Icon Mobile serves as a rechargeable, high-performance headphone amplifier with adjustable gain or stand-alone USB DAC with support for Skype, Messenger or similar microphones. *Product shown with optional NuForce Line Out Adapter for iPod.

THE NEW SHURE PROFESSIONAL HEADPHONES



SRH240

Professional Quality Headphones

Reproducing full bass with detailed highs, the SRH240 is ideal for vivid listening on almost any device. The closed-back, circumaural design rests comfortably over the ears and reduces background noise.



SRH440

Professional Studio Headphones

Tuned to deliver accurate audio reproduction and featuring an adjustable headband with collapsible construction, the SRH440 offers a mix of professional sound quality and comfort ideal for recording and monitoring.



SRH840

Professional Monitoring Headphones

Featuring 40 mm neodymium dynamic drivers precisely tailored to deliver rich bass, clear mid-range and extended highs needed for critical listening and studio monitoring. The SRH840 also provides an ergonomic fit and collapsible design for total comfort and portability.



HEADPHONES FOR MUSIC PROFESSIONALS. AND MUSIC OBSESSIONALS.

Your favorite music will just sound better through the all-new headphones from Shure. Designed to withstand the rigors of everyday use, Shure Professional Headphones deliver even, accurate sound reproduction and an incredibly comfortable fit are perfect for monitoring, studio and general listening. Learn more about the full line of Shure Professional Headphones at shure.com.

Playback HEADPHONE BUYER'S GUIDE

Welcome to the first-ever Playback Headphone Buyer's Guide. Today's music lovers are more interested in headphones than ever before, and it's easy to understand why. Dollar for dollar, no other class of audio product delivers more musical enjoyment or refinement than a good set of headphones can, which may be why so many listeners regard headphones as their personal "hi-fi" systems of choice.

Of course, no two listeners are exactly alike, nor are their specific needs and requirements. For this reason, our Buyer's Guide addresses three very different classes of headphones, with expert reviews of over 40 different models:

- **In-Ear Headphones** (geared for listeners on the go who appreciate sound quality and isolation from external noise, but for whom pocket portability and ease of use are very high priorities).
- **Noise-Canceling Headphones** (geared for listeners who prize sound quality, but who also know they will

often have to listen in noisy, potentially distracting environments).

- **High-Performance Headphones** (geared for listeners who have made sound quality their absolute, number one priority. Listeners seeking headphones in this class often want sound quality that—apart from headphones—could only be achieved through multi-thousand-dollar loudspeaker systems).

To help you navigate through the many choices available, we've prepared Overviews for each of the three classes of headphones above, showing the specific qualities and attributes we look for among products in each class.

We hope you have as much fun reading this guide as we did preparing it, and even more than that, we hope the guide takes you forward in your quest for better sound.

Chris Martens,
Editor, *Playback*



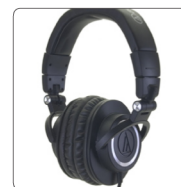
HeadRoom
Right Between Your Ears

Before You Choose Your Headphones...
Consult the Headphone Experts.

After nearly 20 years of evaluating & selling headphones at HeadRoom, we've learned a lot about helping our customers find the perfect pair of headphones for their particular ears, listening tastes, and lifestyle. Here are just a few of the proven favorites.

Top Picks: Full Size Headphones

Audio Technica ATH-M50



This versatile and great-sounding sealed headphone can be plugged right into an iPod. \$159

Value Rating: 9

Denon AH-D2000



These are exceptional sealed headphones with a lively presentation, and true reference sound. \$349

Value Rating: 10

Sennheiser HD800



Sennheiser's latest flagship headphone is regarded by many as the "world's best". \$1399.95

Value Rating: 10

Top Picks: In-Ear Headphones

iHarmonix Platinum ev-Series



An excellent entry-level choice, this in-ear model offers in-line volume, easy fit, and great sound. \$59.95

Value Rating: 9

Etymotic ER6i



A long-standing winner, these affordably priced in-ear headphones offer amazing detail. \$86.99

Value Rating: 9

Shure SE530



This is a top-performing in-ear headphone, and will wow even the most discerning audiophile. \$449.99

Value Rating: 10

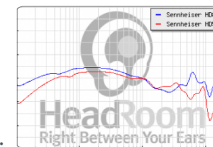
Visit headphone.com to see more Headphone Selection Guides, where you can choose headphones by activity, headphone type, or view our complete lists of Top Picks.

How We Rate Headphones- Inside HeadRoom's Test Lab

Before a new headphone model is sold at HeadRoom, an extensive testing and evaluation procedure is conducted. In-depth listening sessions, product comparisons, and group evaluations are performed. Headphones also undergo a rigorous measurement test so shoppers have an objective method of comparing various headphone models' sound characteristics. To learn more about HeadRoom's Test Lab, visit www.headphone.com.

Measurement Data

Frequency response, square-wave, harmonic distortion, impedance, and isolation measurements are conducted.



Headphone Value Rating

10

Our value rating is a result of evaluating sound quality, build, features, and fit in respect to the price of the headphone and the overall value they offer to a listener. Other factors such as fashion, ease of use, and warranties are also considered.

We provide the most comprehensive headphone evaluations, information, and comparisons in the industry, and a friendly and knowledgeable sales staff ready to answer your questions. We are your personal audio experts, and we guarantee to help you get it right between your ears.

Sales & Service: 800-828-8184/email: sales@headphone.com. Visit us at headphone.com.

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IN-EAR HEADPHONES: OVERVIEW & WHAT TO LOOK FOR

KILLER EARBUDS: WHY SHOULD YOU CARE?

If you're reading this sentence, odds are that you own an iPod or other personal digital music player. And because you're a smart, music-loving person, we'll assume you'd like to get the most enjoyment possible out of your player (within reason, that is). The easiest and best way for that to happen is for you to upgrade to a set of killer earbuds—such as those surveyed here.

Now nobody likes to spend money needlessly, so that many listeners ask if the earbuds that came with their iPod aren't good enough, and our answer—born of extensive listening experience—is simple and unequivocal: “No, they're not good enough.” The truth is that the thin, tinny sound of stock earbuds limits the iPod to about 70 percent of its true performance potential (and that's being generous). To tap the full potential of your iPod, you'll need to spring for better in-ear headphones. As one wide-eyed listener put it after hearing top-shelf earbuds for the first time, “Whoa, I didn't know it could be like this...” Prepare to be amazed.

NOISE ISOLATION: AN EAR-SAVING BLESSING

Killer earbuds sound great, but that's not the only reason to buy them; another great reason is to enjoy the superb noise isolation they typically provide (though some models are of

course better than others in this department).

Here's the deal: stock earbuds are generally worn in the curves of your outer ear, and they tend to fit very loosely, which is a major problem in terms of noise pollution. When earbuds fit too loosely, noises from the outside world can flow into your ears and overpower the music. As a result, listeners often crank up the volume higher and higher until they can hear their music over the background din. Not good.

But the earbuds in this survey are different, in that they all offer soft rubber or foam eartips that fit inside your ear canals, creating firm yet comfortable seals that block out nearly all outside noise. Once noise is gone, there's no need to turn up the volume to hear your music clearly. In fact, compared to stock earbuds, our killer earbuds actually let you hear more music at lower volume levels—something for which your ears will thank you now and in years to come. What's more, some earbuds in this survey can block noise more effectively than big, expensive “noise-cancelling” headphones do. Cool, no?

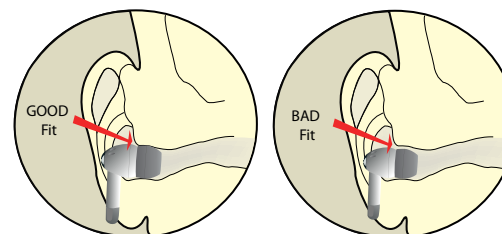
IMPORTANT TIP: A GOOD FIT = GREAT SOUND

Perhaps the biggest complaint you'll hear about in-ear headphones is that they make “no bass” or sound “too thin and bright.” In most cases, though, the problem isn't with the earbud itself, but rather with the way the

earbud is fitted. If the fit is too loose, the sound will be seriously imbalanced (too much treble and midrange, and not enough bass).

To get the most from in-ear headphones, you must make sure they achieve an airtight seal in your ear canals. Most in-ear headphones come with multiple sizes and/or shapes of rubber/foam eartips, and our advice is to experiment with them until you find a set that are comfortable, yet seal well. To make sure the seal is good, just listen for noises from the outside world. When all (or nearly all) background noise is blocked out, the seal is good; otherwise, something's wrong.

Other hints: If you're having trouble getting a good seal, try these three simple tricks. First, wet your finger and lightly moisten the rubber eartips before inserting your earbuds. Second, after inserting the earbuds, try gently pulling back on them just a tiny bit (this sometimes helps the eartips expand enough to achieve a good seal). Finally, try gently rotating your earbuds forward or backward about 1/8th of a turn either way. Once you get a good fit, you won't believe how rich, deep and full-bodied these little guys can sound!



IMPORTANT TIP: GO EASY WITH THE VOLUME

Start out with the volume turned down, and work your way up gradually. As a general rule, you won't need to turn your iPod up to super high levels in order to hear clearly. One word of caution: many killer earbuds continue to sound clean, clear, and undistorted even at ridiculously (and dangerously) high volume levels. So take it easy: don't dial up higher volumes than you really need.

KILLER EARBUDS: WHAT WE'RE LOOKING FOR

- **Tonal Balance**—The ability to produce smooth, evenly balanced bass, mids, and highs, with nothing exaggerated, and nothing left out.
- **Clarity**—Accurate reproduction of transient sounds and musical textures—such as the sound of a pick on guitar strings or the shimmer of cymbals.
- **Dynamics**—The ability to reveal contrasts between loud and soft passages in music without audible stress or strain.
- **Comfort/Fit**—Does it accommodate a wide range of listeners and achieve a good “seal” in the ear canal without applying too much pressure?
- **Value**—Are you getting your money's worth?

Ascending The Audio Peak



“ One of the most recommended earphones by users on head-fi.org ”

NU FORCE

Uncompromising, hi-fidelity earphones deliver unparalleled accuracy, exceptional clarity, full-bodied bass, and a rich, enveloping sound.



NE-6
\$39 MSRP



NE-7M*
\$49 MSRP



NE-8
\$69 MSRP



UF-30
\$79 MSRP

*NE-7M comes with mic and call-answering button (works with iPhone)



APPLE IN-EAR HEADPHONES

\$79

Over time, *Playback* has reviewed over twenty models of in-ear headphones and headsets and—judging by inbound emails and phone calls—it’s a product category that holds enduring interest for our readers. Every now and again, though, we get review requests for specific models of earphones that readers feel are worthy but that have not yet appeared in our pages. One such product that has been mentioned in several reader emails is a model from a firm you might not necessarily think of when shopping for

high-performance headphones: namely, Apple (as in “the guys who built your iPod”). Now I realize that there is a common misconception that Apple builds only those inexpensive and relatively low-performance earbuds that come as standard accessories with all iPods and iPhones. But a not-so-well-known fact is that Apple offers a much higher performance solution, called simply the Apple In-Ear Headphones, for those willing to invest \$79 in superior sound quality.

Interestingly, Apple’s marketing tagline for

the product reads, “Turns out you haven’t heard everything”—a tacit admission that stock iPod/iPhone earbuds leave much to be desired. Happily, Apple’s In-Ear Headphones are designed to cater to audiophile tastes, and so, somewhat surprisingly at this price point, the ‘phones use a sophisticated “balanced dual armature” design (meaning each earpiece provides separate, miniature woofer and tweeter drivers). Of course no Apple product would be complete without offering a few clever, functional twists, and Apple’s top-tier headphones are no exception. They incorporate a tiny, in-line remote/mic module that enables the ‘phones to function as a headset when used with 2G/3G iPhones and that provides limited remote control functions when used with newer generation iPods. Of course our top priorities (and probably yours, too) are sound quality and wearer comfort, and it’s on the basis of those two parameters that we’ll evaluate Apple’s top-shelf model to see how it compares to competing models in its price class.

SONIC CHARACTER

The greatest strength of the Apple In-Ear Headphone is its generally smooth and even tonal balance, especially through the breadth of the midrange. In fact, compared to some other headphones in this price class, the Apples tend to sound just slightly midrange-forward, in part because their low bass and, to a lesser extent, extreme highs are slightly recessed. While the Apple’s bass is well defined and offers good pitch definition, it doesn’t convey the sense of rich, powerful,

foundational low-end response that some affordable headphones, such as the NuForce NE-7Ms or Skullcandy Titans, can provide.

If your sonic frame of reference is the stock earbuds that came with your iPod, then you may well find the superior resolution of Apple’s In-Ear Headphones revelatory. Suddenly, you’ll be able to access and enjoy low-level musical textures and details you may not have heard

overview

Consider this headset if:

you appreciate headphones that offer generally smooth and evenly balanced sound that offers a good measure of clarity and sonic subtlety. Apple’s in-ear headphones sound particular revealing through the broad middle of the midrange, where most music really happens. For owners of iPhones or newer generation iPods, these ‘phones offer a slick remote/mic module that adds lots of welcome functions.

Look elsewhere if:

you favor headphones that offer powerful and deeply extended bass. Relative to competing models, Apple’s In-Ear Headphones offer superior balance and smoothness, but can sound somewhat subdued in the low end (or actually at both frequency extremes, if you listen carefully). Eartips may feel a little too “stiff” for long-term comfort.

before. This is true partly because the Apple In-Ear Headphones offer very good measures of natural resolution and definition. However, their apparent clarity may also have to do with the fact that there is narrow band of midrange frequencies that the Apples tend to accentuate in an extremely subtle way. The result is a heightened sense of clarity, but one that sometimes comes at the expense of traces of that “midrange-forward” quality I mentioned above.

But let me put my comments in perspective. Many of the Apple’s like-priced competitors exhibit relatively pronounced colorations such as overly ripe bass or noticeably “hot” treble response, whereas the Apples for the most part sound smooth and unflappable because their sonic shortcomings are relatively minor and are mostly “sins of omission.”

A comparison between the Apple In-Ear Headphones and the almost identically priced NuForce NE-8 headphones I reviewed in *Playback* issue 19 may prove useful. Under ideal listening conditions, the NuForces offer even greater resolution than the Apple’s do and perhaps more performance upside in an absolute sense. But frankly, the NuForces are more difficult to fit properly and as a result have a tendency to sound bass-shy and/or overly bright. By comparison, the Apples are much easier to adjust for a proper fit and offer smoother overall tonal balance, meaning that—for day-to-day use—they typically give better (or at least more consistent) results.

One small tip: because the Apple In-Ear Headphones come with comparatively “stiff” eartips, you may need to spend some extra



time adjusting them to achieve the best in-ear seal and hence optimal bass performance. Try gently rotating or repositioning them in your ear canals if you don’t at first get an airtight fit.

MUSICAL EXAMPLE

In many, ways the Apple In-Ear Headphones shine brightest on well-recorded vocal material, such as the jazzy, blues-inflected track “Black Coffee” from Claire Martin’s *Too Darn Hot!* [Linn]. Martin’s expressive voice is always under perfect control, yet deeply soulful

and richly inflected so that you really hear (and feel) her blues as she sings “I’m feeling mighty lonesome/’haven’t slept a wink/I walk the floor from 9 to 4/and in between I drink/black coffee...” The Apples do a masterful job of highlighting each syllable and turn of phrase, letting you enjoy the beginnings and endings of each word, and showing you how Martin varies her timing to set up the words “black coffee” for extra emphasis, just as a master storyteller might do. The headphones also give a clean, crisp rendering of the blues piano

and, later on, the Hammond organ that provide accompaniment for Martin’s vocal lines.

But if “Black Coffee” shows the Apple’s strengths, it also exposes their weaknesses. I have played this track many times through various loudspeakers and headphones, and I have come to expect the deep, powerful, rolling electric bass line and the luminous ride cymbal accent notes that give the song its living, breathing pulse. But through the Apple headphones that bass line, though still quite listenable, loses some of its expected propulsive power, while the ride cymbal notes sound clear but are stripped of their signature treble shimmer and luminous glow. My point is that Apple’s In-Ear headphones are good enough to tantalize you with their performance, though they aren’t quite capable of taking you to the sonic mountaintop.

COMFORT FACTOR/ACCESSORIES

Apple’s in-ear headphones are very light and well shaped for purposes of making small physical adjustments to fine-tune fit and therefore sound quality. The ‘phones come with three sizes of silicone rubber ear-tips that are intended to help users achieve a comfortable and airtight fit.

One problem I noted, however, is that Apple’s eartips are noticeably thicker and stiffer than those supplied with many competing in-ear headphones. As a result, you may have the sensation, as I did, that the Apple eartips are not quite compliant enough to achieve both a good airtight seal and all-day comfort at the same time (ideally, you would want the eartips to flex to fit your ear canals—

not the other way around).
The Apple's click-to-answer/mic module is very cleverly designed and works beautifully for taking or making calls when using the headphones with your iPhone. An added plus, though, is that the same module also doubles as a limited functionality remote control for use with iPod Nano (4th generation), iPod Touch (2nd generation), or iPod Classic (120GB model). The module essentially has three control surfaces: a raised pair of "+" and "-" buttons, plus a slightly indented "center" button. When used in conjunction with the iPods above, the controls operate as follows:

- Press center button: Play or pause a song (or video)
- Press center button twice quickly: Advance to the next song (or chapter)
- Press center button three times quickly: Go to the previous song (or chapter)
- Press the "+" button once: increase volume incrementally
- Press and hold the "+" button: increase volume rapidly
- Press the "-" button once: decrease volume incrementally
- Press and hold the "-" button: decrease volume rapidly



The Apple in-ear headphones come with a two-piece, clamshell-type carry case that doubles as a signal-cable winding spool. My one concern, though, is that the stylish case is made of injection molded plastic and therefore may not be rugged enough to stand up to daily use (my fear would be that the case could easily crack). Other accessories include a spare pair of mesh caps (which act as dirt guards for the earpieces), plus a small, and again very stylish case for carrying the two pairs of eartips not currently installed on the headphones.

BOTTOM LINE:
The Apple In-Ear Headphones offer good value for money and a nice blend of sonic virtues that center—as they should—on the headphone's adroit handling of midrange frequencies. Listeners who are, pardon the pun, plugged-in to Apple's design ethos will also appreciate the added control/communications functions made possible by the headphone's cool remote/mic module. If there is any drawback here, it might be that the Apples are good enough to whet your appetite to step up to the next level, seeking those few extra elements of sonic power and refinement that 'phones in the mid-\$100 range have to offer. PB

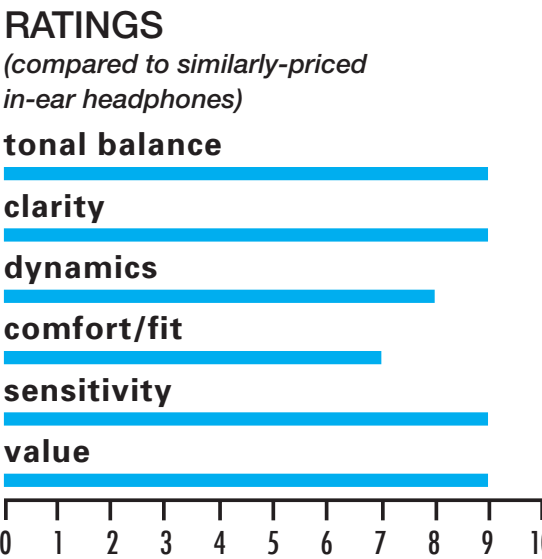
specs/pricing

Accessories:

- Three pairs of round, single-flange rubber eartips (S, M, L)
- Injection molded carry case
- Eartip storage case
- Spare pair of mesh caps

Weight: 10.2 grams
Sensitivity: 109dB

Apple
(408) 996-1010
(800) MY-APPLE
www.apple.com



DENON AH-C551 \$100



The Denon AH-C551 is the little brother of Denon’s sweet-sounding AH-C700 (reviewed in our first “Killer Earbud” survey). Like the AH-C700s (which have now been updated to become the AH-C751s), the AH-C551s feature machined aluminum housings that incorporate what Denon terms an “Acoustic Optimizer” port said to improve sound quality by “adjusting the sound pressure balance in front of and behind the diaphragm.”

SONIC CHARACTER

The AH-C700 won our favor by being a well-rounded performer that offered tons of sonic refinement per dollar, and in many ways the AH-C551 follows that same pattern. Here as in the more expensive model you’ll find effortless midrange clarity, plenty of sonic nuance, and clean, clear delicate highs. Two differences we noted, however, are that the AH-C551s are—relative to AH-C700s and to other earbuds in their class—ever so slightly bass-shy and also relatively low in sensitivity (meaning you’ll need to feed them more power to achieve equivalent volume levels).

MUSICAL EXAMPLES

The AH-C551s are at their best when reproducing well-recorded material that is full of midrange nuance and textural details. A great example would be Holly Cole’s rendition of Tom Wait’s “Take Me Home” from *Temptation* [Metro Blue]. The song is propelled by richly textured acoustic bass, expressive and yet restrained piano lines, and especially by the subtle inflections in Cole’s voice, which the Denons handle beautifully. The AH-C551s

let you hear the emotion that develops as Cole delivers this line: “Take me home you silly boy/ I’m still in love ... with you.” The way Cole’s voice trails off between “in love” and “with you” brings the whole song to life; it’s the sort of small but crucial detail on which the Denon thrives.

COMFORT FACTOR

The AH-C551s are very light and compact, and I was able to achieve a good seal using the standard eartips without too much difficulty. For the AH-C551s, Denon has introduced a softer rubber material for its eartips, which generally improves comfort but also makes the eartips somewhat more prone to “collapsing” when the earbud cables get jiggled. For this reason, I sometimes had to re-insert or re-seat the Denons in my ears in to ensure a good seal.

ACCESSORIES

Three pairs of single-flange rubber eartips (size S, M, L), a hardshell carrying case, and a 31” extension cable.

BOTTOM LINE

The AH-C551 is long on build quality and sonic refinement—especially from the midrange on up. On the whole, this earphone’s tonal balance is somewhat bass-shy, meaning that the Demons are better suited for use in quiet environments than in, say, moving vehicles. **PB**

specs/pricing

Weight: 5.4 grams (not including cable)
Sensitivity: 104 dB/mW

Denon Electronics (USA), LLC
(201) 762-6500
[usa.denon.com](#)

RATINGS

tonal balance

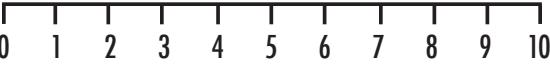
clarity

dynamics

comfort/fit

sensitivity

value





NUFORCE NE-7M

\$49

Over the years, I've come to think of NuForce primarily as a manufacturer of high-end stereo amplifiers and preamps, though I am aware that the company has explored a few other A/V interest areas on the side (as evidenced by such products as the firm's cool Icon desktop integrated amp/USB DAC, as review in *Playback* Issue 8. But one thing I didn't see coming was NuForce's full-on plunge into the world of high-performance portable audio.

Imagine my surprise, then, when I popped into the NuForce suite at CES 2009 only to

encounter NuForce VP Casey Ng, who led me to a display where he insisted that I try the company's new NE-7M in-ear headset. "How much would you say they should sell for?" he asked. I began to frame up one of those equivocal answers editors are supposed to give in such situations, but in my mind's eye I was picturing a price tag that might fall at—or even north of—the \$100 mark. But before I could frame a reply Casey grinned and supplied the actual answer: "Well, would you believe \$49?" Somewhere in the back of my brain, the potential A/V bargain "alert light"

came on, and I decided on the spot that I wanted to review the NE-7M in *Playback*.

SONIC CHARACTER

The NuForce NE-7M is balanced just slightly to the warm side of neutral and has an audible, though relatively unobtrusive, touch of bass forwardness (I've encountered similar or even more pronounced bass "bumps" in far more costly headphones). Those who have listened to a lot of headphones in this price range will, I think, immediately be struck by how smooth and nuanced the NE-7M sounds (traits it shares in common with Skullcandy's also excellent Titan in-ear 'phones). Don't be fooled by the NE-7M's modest price; its overall sound would put it right in the hunt with many models twice its price. One important point to understand is that the NE-7M can be driven to its full sonic potential by an iPod or iPhone, without any need for an auxiliary amplifier.

Bear in mind, too, that the NE-7M is a headset—not just an in-ear headphone, meaning it provides a small in-line microphone and click-to-answer module, which is incorporated into the left earpiece cable. On test calls made through my iPhone 3G, the NE-7Ms captured caller's voices with much better than average fidelity, and callers reported that the headset's mic rendered my voice with unusually good accuracy, too. One small caveat, however, is that when you speak through the NuForce mic the caller will hear your voice just fine, but you *won't* hear your own voice amplified through the NE-7M's earpieces, which can be a little unnerving at first.

MUSICAL EXAMPLE

Part of what is so likeable about the NuForce NE-7M is its ability to impart a welcome touch of compensatory warmth and added bass weight to tracks played straight through an iPod or iPhone—players that, left to their own devices, might otherwise sound a little shrill or thin. To see what the NuForce does so well, put on the track "Senia's Lament" from

overview

Consider this headset if:

you want one of the better sounding \$50/ pair in-ear headphones we've heard thus far and one that just happens to be an iPhone 2G/3G-compatible headset as well. The NE-7M's inline microphone/ click-to-answer module is so tiny and visually unobtrusive that people often miss it at first glance, but it works beautifully. This headset offers terrific value for your money.

Look elsewhere if:

you've absolutely, positively got to have the most accurate, neutral tonal balance possible (the NE-7M is balanced to the warm side of neutral and delivers a degree of larger-than-life bass enrichment). Accuracy mavens might prefer NuForce's slightly more expensive and more neutrally voiced NE-8 in-ear headphone (see below). In its own price class, however, the NE-7M has few peers.

go to: [noise-cancelling headphones](#) | [high performance headphones](#)

jazz/bluegrass Dobro master Jerry Douglas's *Lookout for Hope* [Sugarhill, captured as a lossless ALE file]. What drives the track forward is the interplay between an amplified acoustic bass, the rolling and evocative sound of Douglas's Dobro, and a drum kit equipped with a triangle, whose singular voice is left to ring out as an accent to certain phrases.

Many in-ear headphones give the bass on this track a thin, anemic sound while emphasizing the potential shrill and steely-sounding upper harmonics of the Dobro. Not so, the NE-7Ms; they give the bass its deep and proper weight (and then some), while drawing out the sweeter, richer, more vocal or "singing" qualities of the Dobro. The NuForces also give the drum kit's kick drum appropriate gravitas and punch, while letting you hear

the taut "snap" of the snare drum and the sustained, chime-like ringing of the triangle—yet without making that instrument sound "pingy" or overbearing.

Now in the strictest audiophile sense of things, the fact is that the NE-7Ms may indeed take a few minor sonic liberties with the musical "truth" of this recording, but in doing so they achieve real beauty—and in the process they also do a very good job of suggesting the "feel" and vibe Jerry Douglas's band achieves when playing live. Significantly, when the NE-7Ms err, they do so in directions that A) are eminently listenable, and B) help compensate for acknowledged sonic shortcomings of the iPod and iPhone. That's a compromise I think many listeners will not only accept, but also embrace and enjoy.



COMFORT FACTOR/ACCESSORIES

The NE-7Ms are quite light and their soft rubber eartips feel great and seal well. The NuForces are a nice medium size, big enough to grasp easily but small enough to give you the maneuvering room necessary to achieve a good fit.

I can't say enough good things about the NE-7M's compact and well-designed mic/call-answering module; it's so tiny that you'll rarely notice it's there until a call comes in, at which point it's easy to find the answer button and then move forward with your call.

One very nice detail touch is the NE-7M's slim, leather-like carry pouch, which has a slick spring-open clasp you can operate with one hand. Unlike bulky cases, which seem to be the norm these days, the NE-7M's case is so compact that it soon becomes second nature to tuck the NuForces in a pocket alongside your iPhone.

BOTTOM LINE

The NE-7M is an ideal solution for listeners who are hesitant to drop big bucks on a set of in-ear headphones in that it will give you most of the performance of a set of \$100+ 'phones for about half the price. The "special sauce" here is that the NE-7M offers the added versatility of being a headset—not just a headphone. For sound quality-conscious people who own music-capable cell phones, NuForce's NE-7M is one of most sonically satisfying and cost effective solutions around.

PB

specs/pricing

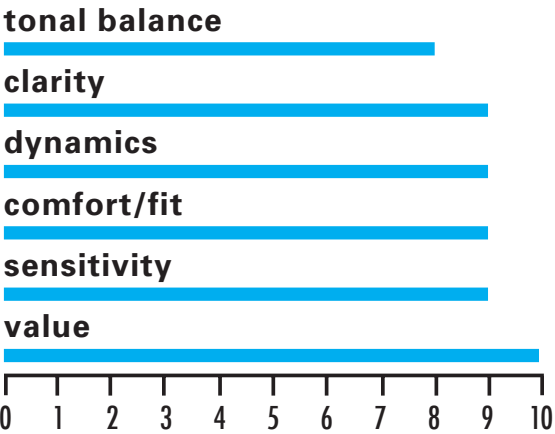
Accessories:

- Three pairs of round, single-flange rubber eartips (S, M, L)
- Carrying pouch

Weight: 12 grams
Sensitivity: 100dB
Price: \$49

NuForce, Inc.
(408) 627-7859
[nuforce-icon.com](#)

RATINGS





NUFORCE NE-8

\$69

NuForce has earned a solid reputation within the high-end audio community for its high-resolution stereo preamplifiers and Class D monoblock power amplifiers, but at CES 2009 the company signaled that its center of gravity might be shifting toward the desktop/portable world. How so? Well, at CES NuForce announced a 2.1-channel desktop sound system, a portable headphone amp/USB DAC called the Icon Mobile, a high performance yet low-priced in-ear headset called the NE-7M (also reviewed in this Headphone Buyers' Guide), and an even more ambitious, higher-end in-ear headphone called the NE-8,

priced at just \$69.

I was particularly intrigued by NuForce's description of the NE-8, which reads as follows:

"Uncompromising, hi-fidelity earphones [that] deliver unparalleled accuracy, exceptional clarity, full-bodied bass, and a rich, enveloping sound: qualities one normally experiences only in the recording studio."

Mere marketing hyperbole? Perhaps, but it is also a statement that begs a question I hope to answer in this review. Can a \$69 in-ear headphone seriously go toe-to-toe with very expensive, high-end models known for their

accuracy, clarity, bass performance, richness, and so on? Let's find out.

SONIC CHARACTER

As always when I review in-ear headphones, my comments on the NuForce NE-8s assume that the 'phones are properly fitted—meaning the headphone ear tips achieve an airtight seal within the wearer's ear canals. I mention this point because the NE-8s aren't easy for all listeners to fit, at least not at first (see Comfort/Accessories below). Once a proper fit is dialed in, however, the sonic results are impressive.

The NuForce NE-8 is an accurate, well-balanced headphone whose voicing is very slightly shaded toward the cool side of absolute neutrality. Once proper fit is achieved, bass is taut, extended, powerful and articulate, though recessed just a bit in the mix, so that some listeners might find the NE-8's bass too "lean." With NE-8's, as with most in-ear headphones, bass performance requires a proper fit; air leaks, even seemingly minor ones, can cause the headphone's low frequency performance to fall off dramatically.

By far the NE-8s most impressive qualities are openness and resolution, which are very good—not just "for the money," but in an absolute sense. The NuForce's excel at teasing out small, low-level textural and transient details in good recordings. During my tests I found the NE-8s comfortably held their own in side-by-side comparison with models two to five times their price. This doesn't necessarily mean the NE-8s beat, or even fully equaled, premium-priced competitors in all respects, but they performed on an even footing and

certainly did not get outclassed—an astonishing fact considering substantial price differentials involved.

The NE-8s are relatively easy to drive and sound quite good when powered directly from an iPod, but to hear them at their best, try powering them with a good headphone amp such as NuForce's Icon Mobile.

MUSICAL EXAMPLE

The joy of the NE-8 involves the effortless,

overview

Consider this headphone if:

you like to hear plenty of transient and textural detail in your music and you appreciate tonal balance that, though generally accurate, may be shaded just slightly toward the cool side of neutrality. In short, there's no sonic "fat," "bloat," or artificial warmth in these headphones—they tell it like it is, though some listeners might find them just a bit "lean" in the bass region. The NE-8s compare favorably with models twice their price.

Look further if:

you're looking for in-ear headphones balanced to the warm side of neutrality or that offer touches of bass enrichment (if those are your tastes, try NuForce's less expensive NE-7M headset). Also be aware that these 'phones aren't always easy to fit properly—at least not for all listeners.

almost matter-of-fact way in which it retrieves delicious low-level details that lesser headphones have trouble reproducing. To appreciate what I mean, try a well-recorded, detail-rich track such as “He’s Gone Away,” from Pat Metheny and Charlie Haden’s *Beyond the Missouri Sky* [Polygram]. The song is a lovely duet between Metheny on electro-acoustic jazz guitar and Haden on acoustic bass, with occasional sparse bits of support from other instruments.

In the song’s opening minute, Metheny plays a deceptively simple, austere melodic line that states the main theme as Haden supplies minimalist, single-note commentary. Several points are noteworthy. First, the NE-8s capture numerous small fingering and articulation noises as Metheny’s hands sweep over the fingerboard, giving a feeling of heightened realism. Next, as you listen, the NE-8s reveal that the record’s producer has used a combination of natural room reverberation and electronic reverb on Metheny’s guitar. The NE-8s make child’s play of showing you which kind of reverb is which—details that many ‘phones smear or fail to reproduce altogether. Finally, there are points where Metheny works the lower register of his guitar while Haden works the upper register of the bass, so that the voices of the instruments overlap for a time. When this happens, some headphones tend to blur and merge the voices of the instruments, but not so the NuForces. Even when the voices of the guitar and bass intersect, the NE-8s reproduce all the subtle little timbral cues that define and distinguish the instruments, and they do so

with such clarity that there is never a moment’s doubt as to which instrument is playing a given note or musical line.

With the NE-8s, you never have to work hard to disentangle individual musical threads within the larger musical tapestry. Clarity just “happens,” putting the listener at ease; *that’s* the real beauty of these fine, affordable headphones.



COMFORT FACTOR/ACCESSORIES

The NE-8s are extremely light and come with a variety of eartips that, in theory, allow for a good seal in the wearer’s ear canals. In practice, however, I found the NE-8s significantly more difficult to fit properly than many of the high-performance in-ear earphones I’ve tested. Here’s why.

Generally speaking, in-ear headphones work best when their designs give users sufficient “maneuvering room” to twist and swivel the ‘phones until a comfortable, airtight seal is achieved. That’s sometimes a tough goal to reach with NuForces, though, because their

driver housings are fairly large and awkwardly shaped and there is not much clearance between the housings and ear tips, leaving users with not much maneuvering room at all. The upshot is that the NE-8s fit some listeners easily, but leave others fumbling to achieve a proper fit. Patient tweaking and trial-and-error testing are the order of the day.

The good news is that, once the fit gets sorted out, the sound is superb, and the NE-8s are light enough to be comfortable for hours on end. The NuForces come with a good selection of eartips, plus a sturdy carrying case. Another neat detail is a small “alligator” clamp that lets you clip the NE-8’s signal cable to your clothing if you like.

BOTTOM LINE

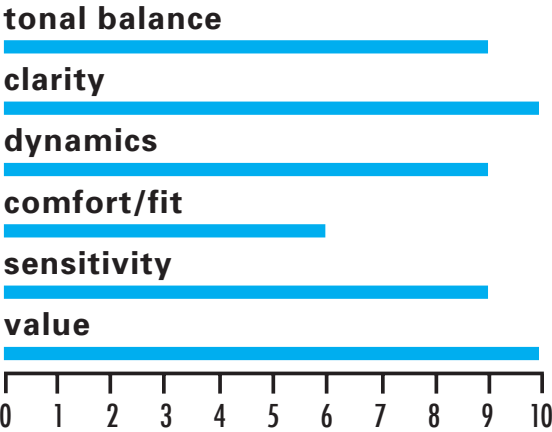
NuForce’s NE-8 in-ear headphones offer exceptional sound quality for the money, with a presentation that emphasizes openness, transparency, and resolution of inner details. Bass can seem a little “lean,” but is taut and very well defined. Given these strong positive qualities, the NE-8s would have earned our Playback Recommended rating, but for one caveat: these ‘phones aren’t easy to fit properly—at least not for all listeners. If possible, try these ‘phones on before you buy them; if the NE-8s fit the shape of your ears/ear canals, you’ll have a sure-fire bargain on your hands. PB

specs/pricing

- Accessories:**
- One pair of round, dual-flange rubber ear tips
 - Carrying case
- Weight:** Not specified
Sensitivity: Not specified
Price: \$69

NuForce, Inc.
(408) 627-7859
[nuforce-icon.com](#)

RATINGS



SENNHEISER CX300

\$89

The CX300 (now replaced by the identical-sounding but differently styled CX300 II shown here) comes packaged with a banner that comes close to describing the product's sound: "Bass-Driven Sound." In fairness, though, there's more to the CX300's sound than a big bottom end. Bass is robust, but not painfully exaggerated, midrange frequencies are pleasingly clear, and highs are bright and crisp without being overly harsh or strident. Put these factors together and you've got an elegant set of mini headphones that sound exciting and alive, and represent a giant improvement over the earbuds you get with most players.

The Sennheisers are a perfect complement to contemporary pop/rock tracks such as "Que Onda Guero" from Beck's *Guero* [Geffen] because they put real clout behind propulsive bass lines and give subtle emphasis to delicate, multi-layered treble effects.

BOTTOM LINE

Though not the last word in absolute sonic purity or accuracy, these comfortable 'phones offer many of the attributes of higher-end models, and at a bargain price. **PB**

specs/pricing

Accessories: 3 pairs of single-flange rubber eartips (sizes S, M, L), carrying pouch

Weight: 0.42 oz./pr.

Sensitivity: 112dB/mW

sennheiser.com

RATINGS

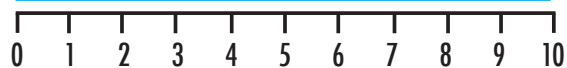
tonal balance

clarity

dynamics

comfort/fit

value



SKULLCANDY TITAN \$50



The Titans (\$50 per pair) are Skullcandy’s newest in-ear headphones and are designed to slot into the firm’s lineup above the entry-level Inkd and Smokin’ Buds models and below the more expensive FMJs (or Full Metal Jackets, also reviewed in this survey). Despite its “middle child” status, however, the Titan is arguably Skullcandy’s best-sounding earbud—and one of the sweetest values in today’s market. Here’s why.

SONIC CHARACTER

More so than most other in-ear headphones priced at or below \$120 per pair, the Titans serve up a sweet combination of near-neutral tonal balance, good dynamic punch, and an unexpectedly big helping of sonic subtlety and detail—especially in the midrange, which is where most of the music really unfolds. Granted, the Titan’s bass is perhaps a little too forward and just slightly overripe, but that’s a nitpick-level detail given how many things these headphones do well, and for so little money. Also, the slightly bass-forward balance

actually works in your favor in environments that have lots of low-frequency background noise (for example, moving cars, etc.). The result is a \$50 headphone that is easily competitive with models costing twice its price, meaning the Titans are a steal—pure and simple.

MUSICAL EXAMPLES

To appreciate how good the Titans really are, try listening to a track that offers multiple layers of textural details, such as “I Could Eat Your Words” from Patricia Barber’s Verse [Blue Note]. Not only do the Titans capture the dark, smoky inflections in Barber’s voice, but they also do a remarkable job with the vibrant, nuanced Dave Douglas trumpet solo heard in the middle of the song. Other ‘phones may get the basics on this track right, but the Titans do so while also revealing small transient and textural details most headphones in their class simply miss.

COMFORT FACTOR

The Titans are extremely light, and I found their foam eartips, which expand to fit the contours of your ear canals, particularly comfortable and effective at achieving a good seal.

BOTTOM LINE

Although they are among the least expensive earbuds in our survey, the Titans are one of the two the best budget in-ear headphones we’ve yet heard, which means they sound as good if not better than far more costly products. If the Titans err, it’s in the direction of a hint of excess bass richness, which is a minor flaw some

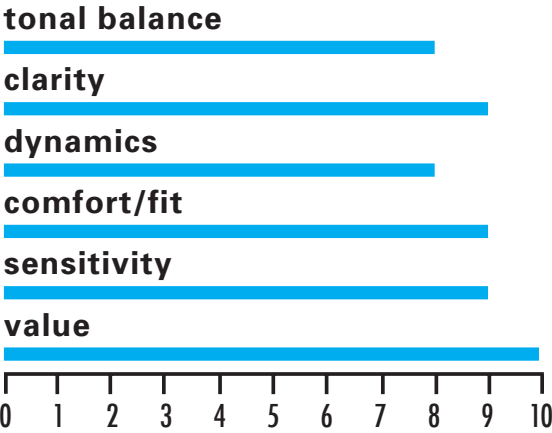
listeners might regard as a serious plus. Those seeking maximum bang for the buck need look no further. PB

specs/pricing

Accessories: One pair of single-flange rubber eartips (size M), two pairs of bell-shaped foam eartips (size S and L), plus a semi-hardshell carrying case.
Weight: 17 grams
Sensitivity: Not Specified

Skullcandy, Inc.
(435) 940-1545
[skullcandy.com](#)

RATINGS



SKULLCANDY FMJ

(FULL METAL JACKET) 11MM

\$70



The FMJ has been Skullcandy’s top in-ear headphone for year (though the firm has just introduced a more costly wood-bodied Holua model). Once offered in two sizes, the FMJs are now sold only in the larger 11mm size (\$70 per pair). The FMJs produce a big, bold and often spectacular sound—almost to a fault. The FMJs are exciting, but perhaps not as accurate as Skullcandy’s less expensive Titans.

SONIC CHARACTER

Compared to Skullcandy’s less costly Titan earbuds (\$50 per pair, also reviewed in this Guide), the FMJ 11mm’s presentation provides clean and powerful though somewhat overemphasized bass, slightly too prominent highs, and somewhat recessed or withdrawn middle frequencies. While the FMJ’s tonal balance is more accurate than that of many earbuds I’ve heard, the fact is that it is not quite as accurate as the lower-priced Titan. Overall, however, the FMJs offer arguably more energetic dynamics than the Titans and a good measure of detail—detail that would be even easier to appreciate if the earphone’s bass, mids, and highs were a little more evenly balanced.

MUSICAL EXAMPLES

To appreciate the FMJ’s strengths, try firing up “Shake Everything You Got” from Maceo Parker’s *Roots and Grooves [Live]* [Heads Up], a track that features razor-sharp slap bass licks, sizzling percussion, and a horn section to die for. The FMJ’s really click on this material because their bass thwack does full justice to

the slap bass, their highs show off the intricacy and power of the percussion, and the horns have enough oomph to cut through the mix in spite of the FMJ’s midrange reticence. But on tracks that feature female vocals, such as “How Do You Stop” from Joni Mitchell’s *Turbulent Indigo* [Warner Bros./WEA], you may find—as I did—that the upper register of the singer’s voice sounds more prominent than the middle and lower register does.

COMFORT FACTOR

The metal-jacketed FMJs weigh the same as Skullcandy’s Titans, though subjectively they seem a bit heavier. I had no problem achieving a good seal with the standard eartips.

BOTTOM LINE

The FMJs are among the least expensive earbuds in our survey, and as such they offer very good value for money. Their strengths are their dynamic punch, good levels of detail, hearty bass and crisp highs. If you listen mostly in quiet environments, then you might find that Skullcandy’s new Titan would be the more natural-sounding choice, but for noisy

environments the FMJ’s voicing has enough extra bass and treble to cut through the sonic haze in a pleasing way. **PB**

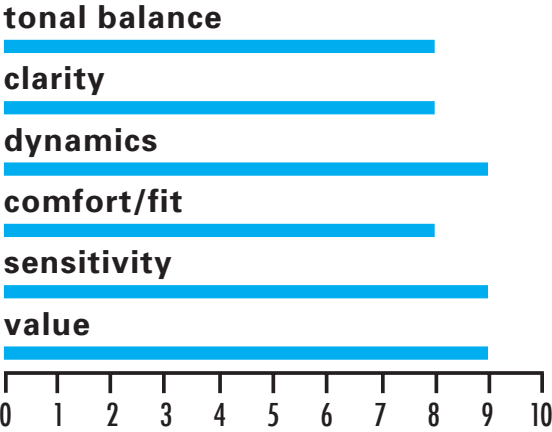
specs/pricing

Accessories: Three pairs of single-flange rubber eartips (size S, M, L), plus a leatherette semi-hardshell carrying case. As a welcome detail touch, the connector cable for the ‘phones incorporates a tiny cylindrical pod that houses an easy-to-use volume control.

Weight: 17 grams
Sensitivity: Not Specified

Skullcandy, Inc.
(435) 940-1545
[skullcandy.com](#)

RATINGS



BEATS BY DR. DRE TOUR \$150



Beats by Dr. Dre is a sub-brand of Monster Cable whose stated goal is to make true, studio-grade sound (as approved by Dr. Dre, of course, as well as his long-term collaborator/producer Jimmy Iovine) available to consumers at accessible prices. But apart from sonic qualities, Beats by Dre products are designed to look cool, too, sporting a distinctive red-and-gloss-black design motif that's very attractive. Toward the end of 2008, and following closely on the heels of the launch of the now-iconic Beats By Dre Studio noise-cancelling headphones (also reviewed in this Guide), the firm announced its Tour "high-resolution in-ear headphones." The Tours are said to convey a sound similar to the full-size Beats Studio over-the-ear headphones, but for less than half the price and in a convenient "earbud" format.

SONIC CHARACTER

I think Dr. Dre's Tour in-ear 'phones not only equal but actually *surpass* the sound quality of the famous full-size Beats Studio headphones. Here's why. The Tours retain the best qualities of the Studios—clarity, detail, and lively dynamics—while mitigating their most significant flaw—audibly colored voicing that overemphasizes bass and upper midrange/lower treble frequencies to a distracting degree. Granted, the Tours add a touch of bass and upper midrange/lower treble emphasis of their own, but they do so in a much subtler, more subdued way than the Studios. The result: better-balanced sound all around. Whereas the Studios definitely exaggerate certain frequencies, the Tours

merely underscore or "dramatize" them a bit, in the process delivering a more accurate sound that works better with a broader spectrum of musical styles. Note, too, that the Tours' minor colorations can become a plus in environments (such as jetliners) where there are high levels of background noise to cut through.

MUSICAL EXAMPLE

A richly layered recording such as Lucinda Williams's "Wrap My Head Around That" from *West [Lost Highway]* nicely shows off the

overview

Consider these headphones if:

you favor a sound that is clear, well-detailed, and dynamically alive, but that has subtle (and not terribly excessive) touches of bass and upper midrange/lower treble enhancement that add a quality of "excitement" to many kinds of music. Also consider the Tours if you like "earbuds" that simply look cool and that incorporate clever tangle-free signal wires that really work.

Look elsewhere if:

you are passionate (and finicky) about sonic neutrality and want in-ear headphones that offer the most accurate, uncolored, evenly-balanced voicing possible (if those are your priorities, you might find Monster's new Turbine in-ear headphones a better choice).

go to: [noise-cancelling headphones](#) | [high performance headphones](#)

Tours strengths. The recording opens with a delicate, reverb-drenched motif being plucked on a guitar as we hear Lucinda Williams’s half of a fragmentary phone conversation, her

voice saying, “Yeah, ... Um-hmm, ... Uhh-huh, ...” The Tours give such a vibrant, up-close perspective that we have the uncanny sense of listening in on a private, intimate conversation. But what is the conversation about? The song soon provides an answer.

As a dark and richly syncopated bass and drum rhythm propels the song forward, we hear Williams sing (in a voice that is unmistakably leveling not just a complaint, but an indictment), “You told me you loved me/said you want to be with me... You looked right into my eyes/said I’m not like the other guys...” The ability to capture small but crucial details such as these inflections in the singer’s voice, or the driving, springy feel of the rhythm section is precisely what the Tours are all about. Yes, they give the acoustic bass a little more punch than is accurate, and yes, they make high percussive transients and vocalist’s sibilant “S’s” sound a bit “hotter” than they should, but these ‘phones are so darned expressive and engaging that you may find (as I do) that their minor excesses are not only forgivable, but just plain charming.

Can you get even more clarity and expressiveness than the Tours offer? Yes, if you’re willing to invest about twice the price. But for many listeners, I suspect the Tours will represent a comfortable and satisfying point of diminishing returns.

COMFORT FACTOR/ACCESSORIES

The Tours are quite light and their soft silicone eartips feel great and seal well. I particularly like the way the Tours’ angled earbud housings are designed, providing generous amounts of offset between the eartips and driver enclosures, and leaving plenty of room for signal cable run-out (with the Tours, you’ll rarely have a sense of the signal cables dragging across the outer surfaces of your ears).

The design of the Tours’ tangle-free signal wires (patent pending) is a clever innovation: the wires are molded into thin, flat “ribbons” that roll-up neatly in the case, rather than curling up into a “rat’s nest” ball of wires. Good thinking, Dr. Dre.

BOTTOM LINE:

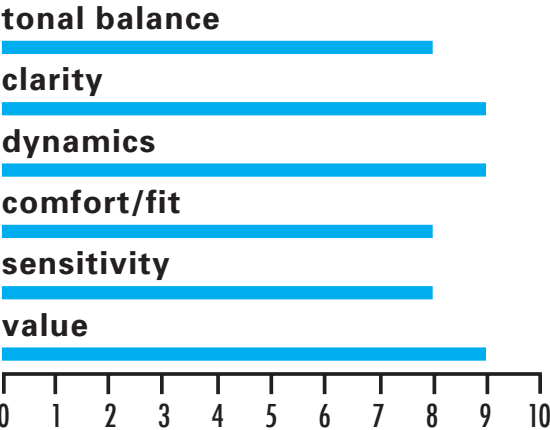
The Tours are just what the doctor ordered (pardon the pun) for those who want highly expressive in-ear headphones that offer almost-neutral voicing plus a touch of dramatic flair courtesy of subtle amounts of bass and upper midrange/lower treble emphasis. The Tours ‘phones also sound better than most when used in noisy environments. Though a matter of personal taste, I found the Tours’ gloss black and red styling motif very appealing. The ‘phone’s cool, tangle-free red signal cables not only look slick but actually work (try them and you’ll wish everyone made cables this way). PB

specs/pricing

- Accessories:**
- Three pairs of round rubber eartips (S, M, L) and two sets of triple-flange “airlock” eartips (S, L)
 - Carrying case
- Weight:** Not specified
Sensitivity: Not specified
Price: \$150

Monster, LLC.
(415) 840-2000
[beatsbydre.com](#)
[monstercable.com](#)

RATINGS



DENON AH-C700

\$199



The AH-C700s (now replaced by the identical-sounding AH-C751s) were Denon’s original flagship in-ear headphones and they look the part with their sleek, vented aluminum housings and simple but effective rubber eartips. These ‘phones wowed us with two highly desirable qualities.

First, they offer quick, nuanced response to musical transients, giving an impression of effortless natural clarity. Listen to Chris Jones’s gorgeous solo guitar on “The Last Fallen Leaf” from *Roadhouses & Automobiles* [Stockfisch] and you’ll be floored by their spooky ability to convey subtle but important details. Second, the Denon’s very slightly midrange-forward sound is nicely balanced and generally does not exaggerate any one frequency range at the expense of another. Many listeners felt the AH-C700s provided a “just right” amount of bass.

Because of the Denons low-ish sensitivity, use higher volume settings for optimal sound.

BOTTOM LINE

Though not the last word in absolute sonic purity or accuracy, these comfortable ‘phones offer many of the attributes of higher-end models, and at a bargain price. PB

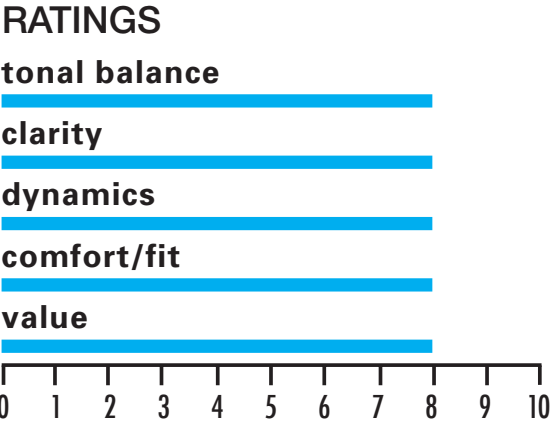
specs/pricing

Accessories: 3 pairs of single-flange rubber eartips (sizes S, M, L), carrying case.

Weight: 0.46 oz./pr.

Sensitivity: 104dB/mW

[denon.com](#)



ETYMOTIC RESEARCH WIRELESS ETY8 \$249



Etymotic Research’s ety8 is the world’s first *high-fidelity*, wireless headphone, and you can order it with or without an “8-mate” Bluetooth adapter that plugs into the iPod’s docking jack.

The ety8s look unusual with matchbox-sized earpieces that are joined by an ear-to-ear cable and slender eartip stems that sprout from the earpieces. The right-hand “matchbox” serves as a control unit featuring Play/Pause, Track Forward/Backward, and volume switches.

To get started, charge up the headphones via the included USB cable, plug in the Bluetooth adapter, and play music (with current-generation iPods, the adapter automatically “pairs” with the headphones). The ‘phones can play for 8-10 hours per charge, and can be operated up to 30 feet from the iPod.

The ety8s sound similar to the ER4Ps (reviewed below), but with less bass, a subtle reduction in overall clarity, and brighter, less refined highs. The ety8s come with a broader range of eartips than the ER4Ps do, making it easy to achieve a comfortable fit with the ety8s in spite of their unconventional shapes.

BOTTOM LINE
Where sound quality is the highest priority, we’d recommend Etymotics’ ER4Ps, but if freedom to roam is what you crave, the ety8s are the ‘phones for you. PB

specs/pricing

Accessories: 2 pairs of dual-flange rubber eartips (sizes S and M), 2 pairs of triple-flange eartips (both size M, 1 short-stem, 1 long-stem), 1 pair of foam eartips (size M), 1 pair of filters, cleaning/filter removal tool, USB headphone charging cable, “8-mate” iPod Bluetooth wireless adapter, carrying case, CD ROM manual.

Weight: 0.99 oz./pr. (headphone assembly)
Sensitivity: The ety8 is self-powered, with maximum output of 110dB

etymoticresearch.com

RATINGS

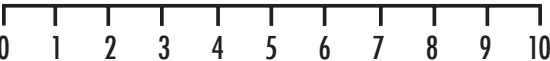
tonal balance

clarity

dynamics

comfort/fit

value



ETYMOTIC RESEARCH ER4P

\$299



The ER4P is the most iPod-friendly of Etymotic Research's ER4-series in-ear headphones thanks to its greater sensitivity and slightly enhanced bass (the other ER4 models typically require an auxiliary headphone amplifier to sound their best). From the lower midrange on up through the highest highs, the ER4Ps offers truly impressive transparency and clarity. Frankly, few other in-ear headphones can surpass the ER4P in terms of midrange clarity, and most don't even come close. On the Dorati/London performance of Webern's *Five Pieces for Orchestra* [RCA Living Stereo] you can hear fingering sounds from individual performers, hall reverberations, and even the soft squeak of a chair when an orchestra member shifts in his seat. The ER4p's also produce bass that is reasonably warm and full, provided you insert the ER4Ps deeply enough within your ear canals to achieve a good seal—essential for optimal bass. Even then, the ER4P's bass can sometimes sound slightly pulled back in the mix, though it is wonderfully tight and well defined.

The deep-in-the-ear fit of the Etymotics is controversial. On one hand, these 'phones give greater acoustic isolation than most others on the market. On the other, you don't so much wear the ER4Ps as you "implant" them, which some listeners find a bit disconcerting.

BOTTOM LINE

Those who can embrace the fit and feel of the ER4Ps will be rewarded with headphones that deliver killer midrange transparency, good though not terribly plentiful bass, and awesome noise isolation. **PB**

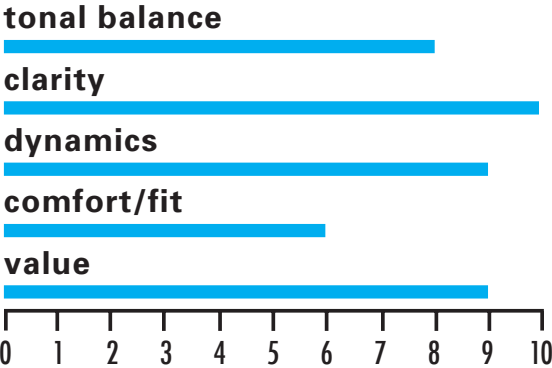
specs/pricing

Accessories: 3 pairs of triple-flange rubber eartips (short-stem, size M), 4 pairs of foam eartips (size M), 1 spare pair of filters (designed to prevent earwax from clogging the headphone's drive mechanism), cleaning/filter removal tool, lanyard clip (to attach the cable to a garment, if desired), 1/4-inch jack adapter, hard-shell travel case, soft carrying case. Note: Etymotics offers an optional adapter that converts the ER4P into the more accurate but much less sensitive ER4S; if you make the conversion, plan on buying an auxiliary headphone amplifier.

Weight: <1 oz./pr.
Sensitivity: 106dB/mW

etymoticresearch.com

RATINGS





FUTURE SONICS ATRIO

\$199

Future Sonics is a leading manufacturer of custom-fitted in-ear monitors for musicians, and its Atrio-series earphones strive to capture the sound of those monitors in an accessibly-priced, universal-fit design. The company invites comparisons between the Atrios and the best in-ear earphones available—the very comparisons made in this survey. Here’s what we discovered.

The Atrios produce exceptionally good bass—powerful, deep, clear, and rich in detail. The only problem is that they tend to push the bass too far forward in the mix, which can overshadow mids and highs, making the ’phones sound less clear than they otherwise

might. In short, while the Atrios have a noticeably warmer sound than many of the headphones in this survey, they also possess that elusive quality of “aliveness” that makes them a blast to use, even though they deviate from strict tonal accuracy.

BOTTOM LINE
Future Sonics’ Atrios are great fun to listen to—especially if you’re a bass aficionado—but they would be even better if they could be re-balanced for a more natural-sounding presentation. **PB**

specs/pricing

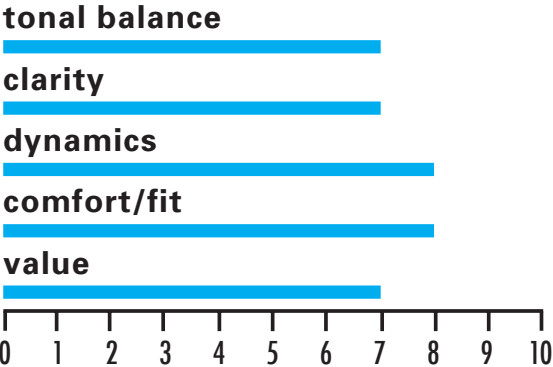
Accessories: 3 pairs dual-flange rubber eartips (sizes S, M, L), 4 pairs of foam eartips (2 each, sizes M and L), cleaning tool, carrying case.

Weight: 0.5 oz./pr.

Sensitivity: 112dB/mW

[futuresonics.com](#)

RATINGS



KLIPSCH CUSTOM-3 \$299



Late in 2007 the venerable speaker manufacturer Klipsch entered the high-performance earbud fray, introducing three Custom-series in-ear headphones (the -1, -2, and -3, in ascending order of performance and price), plus the distinctive, top-of-the line Image earbuds (also reviewed in this Guide). The Custom-3 is a two-way design featuring separate miniature woofers and tweeters, and it is targeted, Klipsch says, toward “critical listeners” and designed to provide “studio reference acoustic experiences.” Marketing hype? Not in this case: The Custom-3s are everything Klipsch says that they are.

SONIC CHARACTER

Let me cut right to the chase; Klipsch’s Custom-3 is one of the most pure, transparent, open-voiced in-ear headphones I’ve ever heard. While the Custom-3 is not cheap, I can honestly

say I’ve never heard anything cheaper that can equal it—or that even comes close. Tonal balance is nearly neutral, and the Custom-3 reproduces everything from the top to the bottom of the audio spectrum with vibrant tonal colors (though some might wish for just a bit more bass). This earbud’s best quality, though, is its uncanny clarity; whether listening to human or instrumental voices, the fundamentals and overtones of notes always seem to hang together with perfect coherency. Delicious.

MUSICAL EXAMPLES

To see what the Custom-3s could really do, I put on a challenging orchestral piece; namely, the Reiner/Chicago performance of Bartok’s *Music for Strings, Percussion, and Celeste* [RCA/Living Stereo], which blends a veritable cornucopia of high and low-pitched percussion along with piano and a full complement of string

instruments, creating a haunting, mysterious, angular composition. Frankly, most earbuds don’t have the chops to do this recording justice, but the Custom-3s waded right in and made the Bartok piece their own. They nailed everything from the lowest drumbeats on through to the at times fierce attack of the string section on up to the eerie and evocative shimmer of the celesta. The effect was not unlike being plugged directly into the mixing console—an experience only a handful of top-tier earbuds are capable of delivering.

COMFORT FACTOR

The Custom-3 are quite light, but there earpiece design requires that you route earpiece cables up and over your ears to the rear, with cables running through a moldable “Flex Wire” tube that doubles as an custom-fit ear clip. Klipsch, to its credit, has figured out that our ear canals are not circular but rather oblong in cross-section, and accordingly the Custom-3s come with patented, soft-rubber eartips that are *oval-shaped*—not round. They feel great and generally seal very well.

Even so, I have two minor quibbles about comfort and fit. First, it’s not always easy to shape the Custom-3 ear clip so that the eartips maintain a good seal; you’ll need to experiment to find a “just right” fit that works. Second, the textured fabric sheathes of the Custom-3 earbud cables can scrape on your skin, creating sandpaper-like noises.

BOTTOM LINE

The Custom-3s are wonderful, well-balanced earbuds that deliver serious high-end

performance in every sense of that term. If \$299 seems like crazy money to spend on in-ear headphones, consider this: you’d have to spend ten times that much (or maybe more) to find full-size speakers that sound this good. PB

specs/pricing

Accessories: Three sets of oval-shaped single-flange eartips (sizes S, M, and L), two sets of oval-shaped double-flange eartips (size S and L), ¼” jack adaptor, airline adaptor, cleaning tool, and carry case.

Weight: 13 grams

Sensitivity: 115dB/mW

Klipsch Group, Inc.
(800) 544-1482
klipsch.com

RATINGS

tonal balance

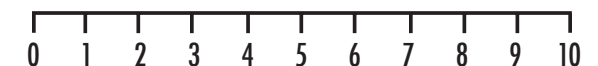
clarity

dynamics

comfort/fit

sensitivity

value



MONSTER CABLE TURBINE

\$150



Toward the end of 2008 Monster Cable announced the release of ambitious new in-ear headphones called the “Turbine In-Ear Speakers,” priced at \$150. Three things caught my attention in this announcement. First, Monster stated that the Turbines were “personally designed by (Monster CEO and founder) Noel Lee, undergoing three years of rigorous research, development, and refinement.” Frankly, it’s uncommon for the heads of large companies to take such a personal, hands-on role in creating individual new products, so I was eager to see how Lee’s brainchild would sound.

Second, the Turbines were announced with the same price as another new high-performance in-ear headphone from Monster (namely, the Beats by Dre Tours reviewed elsewhere in this Guide), which led me to wonder if the products might be one and the same. The answer—as you’ll see if you read both reviews—is that they are actually quite different (though both have merit).

Third, I was struck by Monster’s promise that the Turbines deliver sound comparable to that of “full-size high-end speakers”—a claim I’d ordinarily be inclined to discount as mere marketing hyperbole. At CES 2009, however, Noel Lee spoke convincingly of his desire to offer the Turbines as a means of making legitimate high-end sound accessible to a new generation of listeners who want portable solutions and who could not manage the costs or space requirements associated with traditional high-end loudspeakers.

Does the Turbine meet Lee’s ambitious goals? In many ways, I think it does.

SONIC CHARACTER

As is often the case with accomplished full-range loudspeakers, the sonic goodness of the Turbine headphones starts right in the heart of the midrange (where most of the music is anchored), and then spreads outwards from there to encompass high and low frequency extremes. When you first put the Turbines on, you’re likely to notice how smooth and evenly balanced their midrange frequencies are, or to note their easygoing, unforced clarity (sonic details unfold naturally without histrionics or artificial highlighting). Next you’ll notice how the Turbine’s bass provides rich yet taut and

overview

Consider these headphones if:

you know and love genuinely accurate sound, or if you are the sort of person who enjoys “going deep” to savor the rich inner details and textures that can spell the difference between good recordings and great ones. In many respects, these no-nonsense in-ear ‘phones can compete with models twice their price.

Look elsewhere if:

you seek headphones that add subtle (or perhaps not-so-subtle) sonic colorations calculated to appeal to specific tastes or sonic preferences. Like faithful and factual news reporters, the Turbines consistently “tell it like it is,” without injecting sonic editorial embellishments of their own.

go to: [noise-cancelling headphones](#) | [high performance headphones](#)

powerful foundational support for the music, while steering clear of pockets of boominess or bloated excess. Finally, you'll find the Turbine's highs are clear, extended, and reasonably detailed, yet without applying false layers of treble "sheen" on top of high-frequency harmonics. In short, the Turbine's core sound is accurate, well balanced, and fundamentally "honest."

If you're willing to spend twice what the Turbines cost (or more) you can—if you search carefully—find 'phones that offer a little bit more detail, resolution, and refinement, but in terms of accurate tonal balance the Turbines can compete with the best I've yet heard.

MUSICAL EXAMPLE

Let me use two recordings to illustrate the Turbines' real-world performance. Sometimes the simplest recordings can be the most revealing, and so it is with British jazz vocalist Norma Winstone's rendition of the Cole Porter song "Everytime We Say Goodbye" from *Distances* [ECM]. The track opens with sparse instrumentation—just the sound of Klaus Gasing's lilting sax and Winstone's breathy, nuanced voice, so that even the smallest details and textures are laid bare. The Turbine's answered the call by nailing the reedy, contemplative, almost melancholy sound of Gasing's sax, while revealing layer upon layer of tonal colors and subtle points of emphasis in Winstone's voice. In a recording like this one there is no place for a headphone to hide: it either gets the fundamentals right, or its colorations are instantly exposed—a test

the Turbines passed with flying colors. But as lovely though the Turbines can be on delicate material, they also have sufficient grunt and moxie to hold their own on more full-bodied fare. A good example would be their sound on "There Goes The Neighborhood" from Sheryl Crow's *The Globe Sessions* [A&M]. The track has several key core sonic



elements: an absolutely enormous-sounding kick drum, two raw and grindingly distorted electric guitars, a vigorously loping electric bass, barking saxes applied mostly as accents and, of course, Crow's own feisty and sometimes howling vocals. The Turbines were impressive on this track, partly because they kept their composure when multiple, powerful bass instruments were holding forth at once, and partly because they so effortlessly delineated the multiple, raucous midrange voices performing at full song. The point I'm hoping to get across is that the Turbines are versatile performers that can

capture both the sound and "feel" of quite diverse types of music—perhaps their greatest strength.

COMFORT FACTOR/ACCESSORIES

The Turbines are very light and their soft silicone eartips (similar to those provided with Monster's Beats by Dre Tours) feel great and seal well. The Turbines are a just-right size: big enough to grasp easily, yet small enough to adjust easily for an optimal fit. The Turbine's compact, metal housings (which are patterned after the beefy "Turbine" RCA jacks that Monster provides on many of its high-end audio cables) have a reassuringly solid feel and are said to help fight unwanted resonance.

Unfortunately, the Turbines don't get the cool new "tangle-free" signal cables Monster created for the Beats by Dre Tours 'phones. But the good news is that they do get cables featuring the firm's signature "MicroStrand" conductors arranged in a patented "Magnetic FluxTube" configuration.

BOTTOM LINE

Monster Cable's Turbines are wonderfully versatile, well-balanced and accurate in-ear headphones. Though not cheap at \$150, they are worth every red cent; to do better (and then only a little better), you'd need to spend about twice as much (or maybe more). Self-proclaimed "Head Monster" Noel Lee has done music lovers everywhere a great favor in creating this product. **PB**

specs/pricing

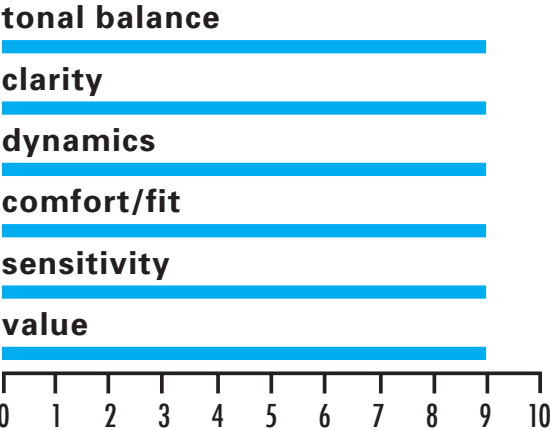
Accessories:

- Three pairs of round rubber eartips (S, M, L) and two sets of triple-flange "airlock" eartips (S, L)
- Carrying case

Weight: Not specified
Sensitivity: Not specified
Price: \$150

Monster, LLC.
(415) 840-2000
monstercable.com

RATINGS



PHIATON PS 200

\$249



Phiaton (pronounced “fee’ ah ton”) is a subsidiary of the very large South Korean consumer electronics firm Cresyn Company, Ltd., which employs over 12,000 people worldwide. Here in the U.S. Phiaton has set its sights on the higher-end headphone and iPod speaker system markets, offering two families of products:

the performance-oriented Primal Series (PS) models, and the more lifestyle-oriented Moderna Series (MS) models. Since I, like many *Playback* readers, tend to think that beauty is as beauty does, I was drawn to Phiaton’s PS range, which at this point has just two products, though it is about to get a third. Collectively, these products are the PS 500

over-the-ear headphone, the soon-to-arrive PS 300 NC noise-cancelling headphone, and the PS 200 in-ear-headphone (\$249) that we’ll look at here.

I first learned of the PS 200 in a pre-Christmas 2008 press release and was intrigued by the product description I found. The PS 200 incorporates decidedly high-end design touches such as aluminum earpiece housings, “Dual Balanced Armature drivers with passive crossovers,” and an Acoustic Impedance Control mechanism that “opens and closes holes on the rear side of the speaker unit” in order to improve bass response. I wanted to try the PS 200s partly out of pure curiosity; I wanted to find out if a relative newcomer could build in-ear headphones competitive with models from more established players such as Sennheiser and Shure. Did Phiaton succeed? Read on to learn the answer.

SONIC CHARACTER

On first listen, the PS 200s initially struck me as sounding very clear, but also a bit bright and lightly balanced. Over time, though, I felt the drivers loosened up and smoothed out somewhat (just as happens with some loudspeakers), while I became more adept at fitting the ‘phones to achieve a more airtight seal in my ear canals and thus enjoyed substantially better bass performance.

It’s easy to get a “pretty good” fit and decent performance with the PS 200s, but I would encourage you to set your sights higher than that. Here’s how. Spend some time trying out the PS 200’s various sizes of silicone rubber

eartips, and also—this is important—try different positioning options until you achieve a *great* fit and thus much better bass response. Once the fit is right, the PS 200s deliver very fine bass, and their overall tonal balance becomes more neutral and richer sounding.

Hint: when fitted properly, the PS 200s should feel almost like swimmer’s earplugs do, so that each rubber eartip creates a truly airtight seal in your ear canals (the fit should be firm, but not oppressively so). To test if the

overview

Consider these headphones if:

you want a very revealing set of headphones that, for the most part, sound highly detailed and full-bodied. The only minor drawback is a very slight upper midrange/treble “burr” that occasionally puts an edge on certain sibilant or hard transient sounds. A nice extra is the PS 200’s cleverly designed carry case. All in all, the PS 200 is a fine first effort from a promising newcomer.

Look further if:

you prize frequency response smoothness over sonic detail, per se. The PS 200s focus on delivering detail, and lots of it, on a 24/7 basis (and again, they do exhibit that occasional treble “burr” we mentioned above). But on the whole, this headphone’s plusses far outweigh its weaknesses.

'phones are properly fitted, try pulling outward on the earpiece housings, very gently. When you do this, you should feel a slight vacuum in your ear canals, indicating that there are no air leaks.

One last point: be aware that these are very detailed-sounding headphones, and for better or worse, they tend to put recordings under the sonic equivalent of a microscope. With the PS 200s, unlike some dual-armature designs I've heard, the headphone's dual drivers speak with one coherent voice, which indicates that Phiaton has definitely done its homework. The only performance drawback is—as noted above—a subtle rough spot in the upper midrange/treble response curve that can sometimes put a bit of an edge on certain notes.

MUSICAL EXAMPLES

The PS 200's strengths are nicely revealed by master bass guitarist Dean Peer's solo album *Ucross* [XLO Recordings, re-mastered reissue]. Many of Peer's compositions, such as this album's first track called "Risks & Missions," are based on lines played in the bass's normal range interwoven with counterpoint lines played as very high frequency bass harmonics (created by lightly placing a fingertip from one hand against the string at a specific interval position and then lightly tapping or strumming the string with a fingertip from the other hand). The net effect is of hearing two instruments at once (though they are one and the same): one with the deep, powerful, low voice of a normal bass guitar and the other with a surprisingly high, ringing, chime-like voice. On

"Risks & Missions," the PS 200s did a fine job of capturing the twin voices of Peer's bass, nailing the dark, voluptuous power of the lower melodic lines while cleanly reproducing the abrupt transient attack and soaring sustain of the high harmonics. The PS 200s bring so much clarity to the party that at times you might feel as if yours ears/brain have been "hard-wired" to the bass guitar's pick-ups: it's wonderful stuff.

But sometimes the Phiaton's natural clarity can be marred by hints of edginess that make the 'phones sound momentarily bright, even slightly abrasive. On the song "If Our Hearts Ain't In It," from Eric Bibb's *Get Onboard* [Telarc], for example, Bibb's consonants sometimes take on a strident quality, while cymbals and electric guitars occasionally exhibit an excessive degree of "bite." About 1:22 into the song Bibb sings the line "Ask forgiveness for all our sins/and vow to change our ways..."—a line that should sound soulful and very clear, yet smooth. Through the Phiatons, however, the word "Ask" sounds more like "Assssk," with the "s" sounds overwrought, while the high-hats keeping time in the background take on a bright, glassy sheen that sounds a bit unnatural. To be fair, moments like these don't come along very often, but when they do, the PS 200's normal clarity temporarily transitions into a more harsh and hard-edged quality that's more a curse than a blessing.

COMFORT FACTOR/ACCESSORIES

The PS 200s are very light and come close to matching the comfort standard set by our

all-time comfort champs, the Klipsch Image earphones. Importantly, the size and shape of the PS200s' beautifully made aluminum earpiece housings make it easy to grasp and maneuver the 'phones to make on-the-fly adjustments to achieve a better fit.

The PS 200s come with an airline adapter, three sets (and sizes) of silicone rubber eartips, and one of the best-designed carry cases we've seen. Phiaton plainly comes from the "a place for everything and everything in its place" school of thought because the case provides a molded plastic tray with cut-outs for each earpiece, positioning stubs for holding spare eartips, a socket for the airline adapter, and the whole tray—get this—serves as a spool on which you can wind up the signal cable (why aren't all cases this well done?). The tray, in turn, is wrapped in a durable canvas-covered outer shell that has a magnetic closure flap. Very nice.

BOTTOM LINE

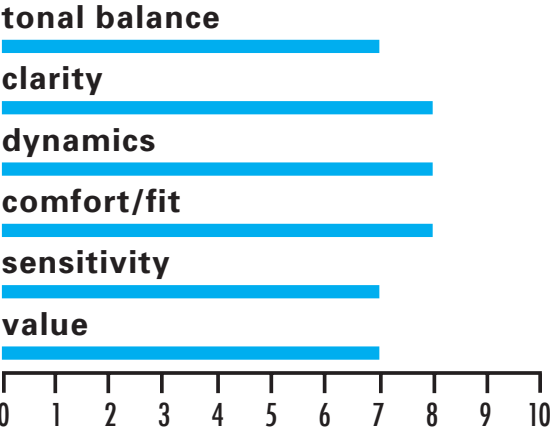
The PS 200 represents a strong first effort from a firm that plainly wants to make its mark in this marketplace. These headphones are well made and offer a detailed and full-bodied sound that will delight many listeners. The Phiatons would easily have qualified for a Playback Recommended rating but for those occasional slight touches of treble edginess we observed. If those could be resolved, the PS 200s would leap from good to great in an instant.

specs/pricing

Accessories:
• Three pairs of round, single-flange rubber ear tips (S, M, L)
• Airline adapter
• Carrying case
Weight: 5 grams (without cord)
Sensitivity: 95dB
Warranty: One year, parts and labor
Price: \$249

Phiaton Inc.
(866) 313-3203
[phiaton.com](#)

RATINGS





SHURE SE310

\$250

The SE310 is the third best in-ear headphone that Shure makes, but don't let its status as a "bronze medalist" fool you; these are very serious headphones that can go toe-to-toe with most competitors' top models. The SE310 feature single "balanced armature" drivers, with small vents designed to augment bass performance.

The SE310 have a bright (though not overly so), clean, pure sound that—with most music—conveys a pleasing sense of openness and clarity. If you enjoy listening to female vocalists, acoustic guitar, violins, flutes, and appreciate hearing the "air" surrounding instruments, the SE310s will make you feel right at home. Bass is clear and well defined, though it is not as

hearty or deep as what you get from some other 'phones in this survey.

The SE310s include Shure's excellent "Fit Kit," which provides multiple eartips of different types, shapes, and sizes, and earpiece cables that go up and over the ear. When properly fitted, the SE310s offer very good acoustic isolation.

BOTTOM LINE

*The comfortable SE310s are a good choice for listeners who favor sound that emphasizes openness and clarity over warmth and deep, punchy bass. **PB***

specs/pricing

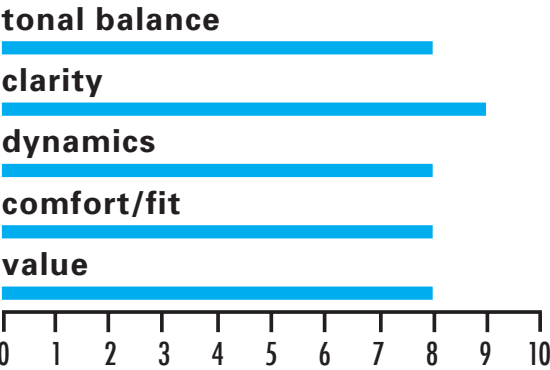
Accessories: 3 pairs of single-flange rubber eartips (sizes S, M, L), 3pairs of bell-shaped closed-cell foam eartips (sizes S, M, L), 1 pair of triple-flange rubber eartips (long-stem, size M), cleaning tool, detachable 3-foot cable, carrying case.

Weight: 0.99 oz./pr.

Sensitivity: 111dB/mW

[shure.com](#)

RATINGS



ULTIMATE EARS SUPER.F1 5PRO \$250



Ultimate Ears is famous for its custom-fitted UE-series in-ear monitors, but also makes a range of universal-fit in-ear headphones. The Super.fi 5Pro is now the number two model in the UE lineup (though when this review was first published the top-of-the line Triple.fi 10Pros—also reviewed in this Guide—were not yet available). By any rational standard, though, the Super.fi 5Pros must be counted among today’s top-tier headphones.

They offer tonal balance that is essentially neutral, providing just a touch of added bass warmth with gentle, ever-so-slightly subdued highs. But this voicing works out synergistically for listening through iPods and other digital players, which often tend to sound a bit bright and bass-shy. The 5Pros are sonic smoothies, too, always sounding graceful—never edgy or harsh.

To complement their fine voicing the 5Pros exhibit unusually high sensitivity, meaning they can really rock, even at low volume settings. The ‘phones can also handle large-scale orchestral passages with ease, and they make dynamic contrasts really *jump*. Completing the picture, the 5Pros are all-day comfortable, though their up-and-over-the-ear wire routing scheme takes some getting used to; the earpiece wires that hook over your ears are a little on the stiff side.

BOTTOM LINE
The Super.fi 5Pro is a versatile, well-rounded headphone that combines muscular dynamics, smoothness, great tonal balance, and a welcome touch of warmth. PB

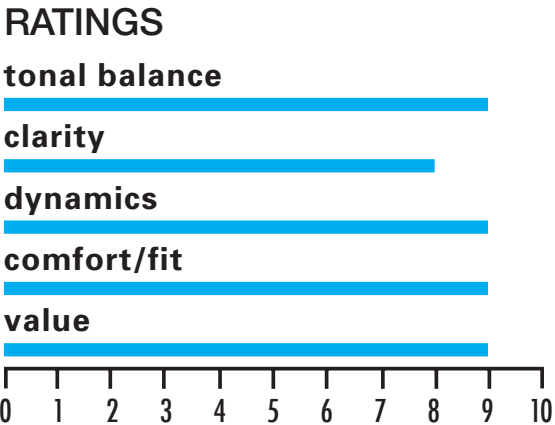
specs/pricing

Accessories: 3 pairs of single-flange rubber eartips (sizes S, M, L), 1 pair of dual-flange rubber eartips (size M), cleaning tool, sound level attenuator, 1/4-inch jack adapter, carrying case.

Weight: 0.6 oz./pr.

Sensitivity: 119d/mW

ultimateears.com





KLIPSCH IMAGE \$349

If you are in the “bigger is better” camp, then Klipsch’s Image (now “image X10”) in-ear headphone will come as quite a surprise. The Images, you see, are not only the firm’s flagship earbuds, but also—by a significant margin—the smallest in-ear headphones that Klipsch (or anybody else) currently makes. But spend a few hours

listening to the tiny Images and you may find yourself convinced that less is definitely more.

SONIC CHARACTER

Although a bit less sensitive than Klipsch’s Custom-3s (reviewed elsewhere in this Guide), the Images also sound extremely pure, transparent, and open-voiced. Two differences, however, are that the Images provide slightly warmer tonal balance and offer somewhat more powerful bass. This combination of virtues may make the Image as close to a “perfectly voiced” earbud as anyone has yet built (though you could build a good case for a few others, too). One of the Image’s greatest strengths is its ability to convey low-level sonic information in a pure, believable, cohesive way. Harmonics, overtones, and other small details always sound like natural, organic extensions of the voices from which they originate. It’s a subtle quality that quickly becomes addictive.

MUSICAL EXAMPLE

One of the real beauties of the Images is that sound great on audiophile-grade material (as you would expect), but also make the most of not-so-perfect records. On “You Have Loved Enough” from Leonard Cohen’s *Ten New Songs* [Sony], the Images not only captured the dark weight and gritty textures of Cohen’s voice but also contrasted them against the much lighter, yet still decidedly earthy, overtones of Sharon Robinson’s voice (Robinson co-wrote the song with Cohen). What impressed me was the Image’s ability to let me follow even the smallest and most subtle inflections of either performer’s voice—just as I

often do at live concerts. It’s that ability to invite listeners to relax and lose themselves in the music that sets the Images apart.

COMFORT FACTOR

Klipsch Images are, hands down, the most comfortable and easy-to-use in-ear headphones we’ve ever tested, and comments from first-time listeners show why. “Man, these things are a revelation,” one listener said, “I can’t believe how easy they are to insert and remove.” Another listener added, “They slip into your ears so easily, and then give you instant fidelity; you don’t have to fiddle around with them to get great bass.” And yet another test pilot observed, “They’re so light and comfortable you may forget you’re wearing them.” Credit goes to Klipsch in two ways. First, the drive mechanisms of the Images are incredibly small and light, yet capable of top-shelf performance. Second, Klipsch has developed patented, soft-rubber eartips that are oval-shaped, and that fit your ear canals much better than round eartips typically do. They work like a charm, and feel terrific.

ACCESSORIES

Three sets of oval-shaped single-flange eartips (sizes S, M, and L), two sets of oval-shaped double-flange eartips (size S and L), ¼” jack adaptor, airline adaptor, cleaning tool, small carrying pouch, and a larger carry case that can hold the Images plus an iPod.

BOTTOM LINE:

The Images are superb in terms of tonal balance, openness, top-to-bottom coherency,

and attention to small sonic details and nuances. While Klipsch’s Custom-3s might offer a hair more resolving power, the Images offer even smoother highs, while their slightly warmer tonal balance works better with a broader spectrum of records. In terms of long-term comfort, however, the Images are in a class of their own. PB

specs/pricing

Weight: 10 grams
Sensitivity: 110db/mW

Klipsch Group, Inc.
(800) 544-1482
klipsch.com

RATINGS

tonal balance

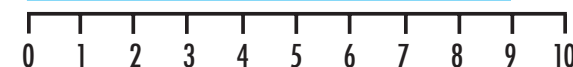
clarity

dynamics

comfort/fit

sensitivity

value





SENNHEISER IE 7

\$300

The German firm Sennheiser has long been known for producing excellent lower-cost earbuds such as the CX300 covered in *Playback's* first "Killer Earbud" survey, but at the 2008 Consumer Electronics Show the firm announced its ambitious new line of IE-series in-ear headphones, which aim for the very highest levels of performance. As this is written, the IE models are just beginning to appear on the market, so we were fortunate to obtain a sample of the IE 7, the next-to-the-top model in the range, for our survey. We're pleased to report that it's everything you might expect a top-tier, German-made product to be: crisp, precise, and beautifully built.

SONIC CHARACTER

Like the best of its competitors in this price class, the IE 7 offers a clear, focused, highly transparent sound. The earphone is also quite sensitive and easy to drive, so that it produces a big sound that is dynamically alive. Tonal balance is reasonably neutral and

characterized by tight and robust (but not overblown) bass, and smooth, evenly weighted midrange. Highs are clean and clear, but treble response is skewed slightly to the bright side of neutrality. Some perceive the forward-sounding highs as enhancing clarity, while others feel they make the IE 7 sound a bit thin or even "bass shy," which isn't actually the case.

MUSICAL EXAMPLE

On the title track of Marcus Miller's *The Sun Don't Lie* [Pra Records], you'll hear Miller on a Fender Jazz bass guitar ably supported by synthesizers, piano, steel drum, and a percussion battery. The Sennheiser's strengths for the most part complement the track perfectly, capturing the dark, potent "pop" of Miller's lowest slapped notes (man, can the IE 7s go *low*), while also revealing the almost vocal quality of sustained bass notes, which sing with a prolonged "Mwaaahh" that's incredibly evocative. All the intricate inner textures of the synth are exposed as is the characteristically round tone and unmistakably Caribbean voice of the steel drum. But high percussion, though very clear, has a bit of excess sizzle, sheen, and bite that—though

undeniably exciting—sounds a little larger than life. This characteristic complements some material, but not all.

COMFORT FACTOR

The IE 7s are quite light, with an earpiece design that requires you to route earpiece cables up and over your ears, with cables running through a stiff, bendable tube that doubles as a custom-fit ear clip. I found the IE 7s quite tricky to position so as to achieve a good seal, and some guest listeners gave up before ever experiencing a really good fit (meaning they missed out on the IE 7's potentially superb bass response). With this headphone more than most in this survey, you need to keep experimenting with eartips and positioning until they seal well, thus producing great bass.

BOTTOM LINE:

The IE 7s are superb high-end earbuds that are fully competitive with other top models in this price class. Strengths include relatively high sensitivity (which helps give an energetic, full-bodied sound), excellent bass, and clear, well-balanced midrange. Highs, as noted, are crisp but a little too forward—a characteristic some

will love, but others not so much. Fit can be a bit finicky, so plan on experimenting for best results. PB

specs/pricing

Accessories: Three sets each of single-flange and double-flange rubber eartips (sizes S, M, and L), two sets of bell-shaped foam eartips (size S and L), cleaning tool, cable clip (for securing the cable to garments), and two-piece hardshell case with magnetic closure.

Weight: 14 grams

Sensitivity: 120dB/mW

Sennheiser Electronic Corp.
(860) 434-9190
sennheiser.com

RATINGS

tonal balance

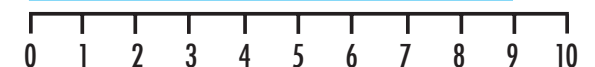
clarity

dynamics

comfort/fit

sensitivity

value





SHURE SE420 \$400

In just about any product line other than Shure's, the SE420 in-ear headphones would be a flagship product (and then some). But as things stand, the SE420s are Shure's next to the top-of-the-line models, slotted into the range just below the mighty \$450-\$500 SE530s (which were the best overall performers in *Playback's* first "Killer Earbud" survey). Even so, the SE420s credentials are impressive; it is a two-way

design (meaning it has separate, miniature woofer and tweeter elements) that promises "defined lows, mids, and highs." Does it deliver them? Read on.

SONIC CHARACTER

The SE420s just might offer the most "textbook perfect" neutral tonal balance of any of the headphones in our survey (though they would have stiff competition from several models in this group). In fact, smooth, evenly balanced frequency response is arguably the SE420s' best and most defining characteristic. Not surprisingly (given the significant price difference between the models), the SE420 offers significantly more detail than Shure's entry-level models and much better tonal balance than the SE310 (reviewed elsewhere in this Guide).

At first blush the SE420 seems reasonably revealing, right up until you compare it side-by-side either to Shure's own SE530 or to other manufacturer's best models in the \$300 range. Then it suddenly becomes apparent that while the SE420 offers good (maybe even very good) levels of detail and sonic nuance, it falls well short of true greatness.

MUSICAL EXAMPLE

To appreciate the benefits of the SE420s' wonderfully even voicing, I put on the late Eva Cassidy's performance of "Stormy Monday" from *Live at Blues Alley* [Blix Street]—a live electric blues recording that can sound a little thin or shrill through some earbuds but that sounded robust, full-bodied and surprisingly smooth through the Shures. But if this track

reveals some of the benefits of the SE420s, it also exposes their shortcomings. Normally, this Cassidy recording should sound intensely alive and realistic. For example, you should be able to hear crystal clear reverb tails on Cassidy's voice, hall echoes that reveal the size and acoustics of the club, and the unmistakable "grunt" of muscular guitar and bass amps at work. But through the SE420s those sonic details, though present to some degree, were not as clear, explicit, or fully developed as they should have been. In short, the SE420s sounded ever-so-slightly out of focus.

COMFORT FACTOR

The SE420s are moderately lightweight earbuds whose earpiece cables can be worn straight down in front or looped up and over your ears. I felt the bodies of the earbuds were large enough to make over-the-ear cable routing desirable, though I realize not all listeners find over-the-ear cable routing method comfortable. It's easy to get a good seal with the SE420s thanks to Shure's excellent "Premium Fit Kit," described under "Accessories," above.

BOTTOM LINE:

The SE420s offer smooth, neutral tonal balance, and a good though not quite great measure of detail and nuance. It's been said that the great is the enemy of the good, and sadly, it's true. So, if you can afford the already good SE420s, may we suggest that you dig a little deeper to spring for Shure's truly great SE530s? **PB**

specs/pricing

Accessories: Three sets each of rubber single-flange eartips and bell-shaped foam eartips (sizes S, M, and L), one set of universal-fit triple-flange eartips, 1/4" jack adaptor, airline adaptor, cleaning tool, level attenuator (inline volume control), modular cable, and hardshell carrying case. Note: You may also want to consider Shure's extra-cost Music Phone Adapter, which turns the SE420 into a mic-equipped headset.

Weight: 29.5 grams

Sensitivity: 109db/mW

Shure Incorporated
(847) 600-2000
shure.com

RATINGS

tonal balance

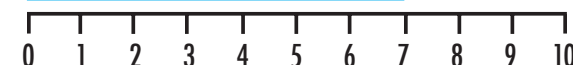
clairy

dynamics

comfort/fit

sensitivity

value



SHURE

SE530/530PTH

\$449



Shure’s flagship SE530s are sophisticated two-way, three-driver in-ear headphones that aim for top-tier performance. The “PTH” version comes with Shure’s cool Push-To-Hear accessory, which is a switch-activated powered microphone that enables users to listen in on in-room conversations if they wish; it bumps the price from \$449 to \$499.

To state things simply, the SE530s do more things right than any other in-ear headphones we’ve heard. First, their tonal balance sounds almost perfectly neutral from top to bottom. Bass is clean and extremely powerful, but not overdone, while mids and highs are beautifully and evenly balanced. Next, the Shures exhibit excellent clarity—essentially tying the Etymotics ER4Ps and Klipsch Custom-3s in this critical performance area (though the ER4Ps and Custom-3s might still enjoy a narrow edge in midrange transparency). Third, the Shures tie with Ultimate Ears as the most sensitive headphones in our survey, meaning that they can easily take rough-and-tumble dynamic passages in stride.

Finally, the SE530s feature a deluxe version of Shure’s “Fit Kit,” whose varied eartip options ensure a comfortable fit for one and all (like the SE310s, the SE530s require that cables be looped up and over wearers’ ears).

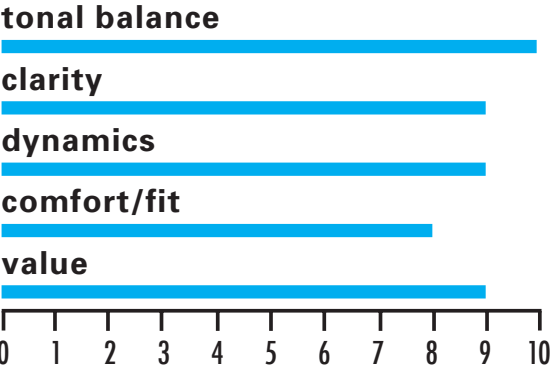
BOTTOM LINE:
With many virtues and few if any vices, Shure’s SE530s are the best universal-fit, in-ear headphones money can buy. PB

specs/pricing

Accessories: 3 pairs of single-flange rubber ear tips (sizes S, M, L), 3 pairs of bell-shaped foam eartips (sizes S, M, L), 1 pair of triple-flange rubber eartips (size M), cleaning tool, in-line volume control adapter, Push-To-Hear adapter, 2 detachable cables (9-inch and 3-foot), 1/4-inch jack adapter, carrying case.
Weight: 1 oz./pr.
Sensitivity: 119dB/mW

[shure.com](#)

RATINGS



ULTIMATE EARS TRIPLE.FI 10 PRO

\$400



You could argue the Ultimate Ear’s triple.fi 10 Pro offers the most technically advanced design of any earbud in this (or any) survey, since it is the only three-way in-ear headphones in this group. That’s right: The triple.fi 10 Pros feature separate, miniature bass, midrange, and high-frequency drivers—all fitted into an enclosure smaller than the tip of your pinkie finger. But does this technical prowess translate into great sound?

SONIC CHARACTER

The triple.fi 10 Pros offer broad, smooth frequency response with a light touch of very

low bass emphasis and—way up high—a barely perceptible hint of treble roll-off. But the overriding impression these headphones create is that they are well balanced and deliver a hearty and engaging sound. Though we liked Ultimate Ears’ super.fi 5 Pros (also reviewed in this Guide) quite well, the triple.fi’s are even better, offering more evenly balanced frequency response, slightly more extended highs, and a more nuanced sound overall. Two of the triple.fi’s particular strengths are exceptionally good noise isolation and overarching smoothness—especially through the critical midrange. At higher frequencies the triple.fi 10 Pros convey slightly less low-level sonic information than some competing models do, but they offer the offsetting benefit of arguably superior smoothness.

MUSICAL EXAMPLE

The triple.fi 10 Pro is at its best on full-range audiophile recordings, such as Steve Strauss’s cover of the classic Springsteen song “Youngstown,” from *Just Like Love* [Stockfisch, SACD]. The track starts with a concert bass drum figure that emulates the clank of heavy factory machinery, and the triple.fi’s nailed

the deep, lingering “thwacks” of that drum as well as any earbuds I’ve heard. They also did a good job with Strauss’s evocative baritone voice, though they tended to smooth over some of the gritty, gravelly textures that are so characteristic of his sound. On the same track, the triple.fi 10 Pros also sounded lovely on Chris Jones’s guitar and dobro accompaniment, although they rounded off the very highest guitar and dobro harmonics, and suppressed the sense of high-frequency “air” I expected to hear. The resulting sound was rich and pleasingly romantic, but came up just a bit short in terms of transparency and detail.

COMFORT FACTOR

The triple.fi 10 Pros are light earbuds whose earpiece cables are routed up and over the listener’s ears. A reinforced section of the cable acts as a moldable, custom-fit earclip that worked well for me but that some might find a bit too stiff for optimal comfort. Ultimate Ears provides a broad selection of various types of eartips, so it is never a problem to find a set that fits and seals well.

BOTTOM LINE:

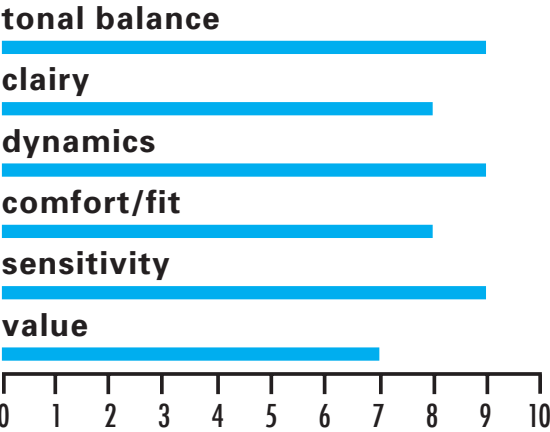
The triple.fi 10 Pro is Ultimate Ears’ best-performing, universal-fit, in-ear headphone, and it is a top tier performer in terms of frequency response, smoothness and dynamics. Overall, the triple.fi’s tend toward a slightly “romantic” presentation that is satisfyingly rich in tonal colors, though it falls justshort of achieving the elusive “Nth” degree of transparency and cohesiveness that some audiophiles might crave. PB

specs/pricing

Accessories: Three sets each of silicone single-flange eartips (sizes S, M, and L), one set each of universal-fit dual-flange eartips and foam eartips, ¼” jack adaptor, level attenuator, 26” extension cable, and hardshell carrying case. Note: Later this year, Ultimate Ears plans to drop the dual-flange eartips and instead to supply two sets of foam eartips.
Weight: 17 grams
Sensitivity: 117 db/mW

Ultimate Ears
(866) 837-7734
ultimateears.com

RATINGS



NOISE CANCELLING HEADPHONES: OVERVIEW & WHAT TO LOOK FOR

More than we like to admit, ours can be a very loud world. Whether we're jetting across the country, catching a train for the morning commute, working in office cubicles with AC systems and printers humming away in the background, or trying to listen to music while the kids have a PS3 game cranked up in the family room, noise constantly surrounds us. For those seeking a little serenity in the midst of all the racket, plus high quality sound for music playback, nothing fills the bill like a good set of noise-cancelling headphones. This portion of our Headphone Buyer's Guide will look at eight of the better noise-cancelling headphones on today's market including models from Audio Technica, Beats by Dr. Dre, Bose, Creative, Denon, JVC, Sennheiser and Sony.

WHAT'S THE DEAL WITH NOISE CANCELLATION?

Noise-cancelling headphones don't merely block out external noise (although all sealed, over-the-ear headphones do that to some degree). Rather, they use sophisticated built-in microphones and onboard circuitry to detect noise and then to create and play signals designed to cancel out noise (by creating sounds that are, in theory, equal and opposite to whatever noise is present at the time). The trick, of course, is that the headphones also have to do a good job of reproducing music with power, subtlety and finesse—even as they strive to wipe out noise.

GOOD NEWS: THESE BABIES ARE SELF-POWERED

Noise cancelling headphones hold particular appeal for listeners on the go or for those who work in noisy environments, and in most cases, they will be used with iPods or other digital music players that have limited power output and battery life. But the great news is that noise-cancelling headphones are, as a rule, extremely easy to drive because they have efficient, built-in battery-powered amplifiers of their own, reducing the workload (and battery drain) on your iPod.

WHAT WE LOOK FOR IN NOISE CANCELLING HEADPHONES

We look for the same important sonic qualities we expect in other good headphones or earbuds, plus a few other qualities specifically related to noise cancellation.



Tonal Balance—The ability to produce smooth, evenly balanced bass, mids, and highs, with nothing exaggerated and nothing left out.



Clarity—Accurate reproduction of transient sounds and musical textures—such as the sound of a pick on guitar strings or the shimmer of cymbals.



Dynamics—The ability to reveal contrasts between loud and soft passages in music without audible stress or strain. Also, the ability to reveal momentary variations in dynamic expression within a musical phrase.



Comfort/Fit—Does the headphone accommodate a wide range of listeners and fit easily on your head without applying too much (or too little) pressure?



Noise Isolation/Cancellation—How effective are the headphones either in terms of physically blocking out or electronically cancelling out external noise?



Ease of Use—Are control switches easy to understand and intuitive to use?



Value—Are you getting your money's worth?

ABOUT OUR TEST SETUP:

To evaluate our noise cancelling headphones we needed two things: a reliable and repeatable source of background noise, and a good music source to drive the headphones.

Noise Source: Musical Fidelity kW SACD player, NuForce P9 preamplifier and Reference 9 SE v.2 monoblock amplifiers, Mirage OMD-28 loudspeakers playing a “pink noise” track from the Ayre Acoustics *Irrational, But Efficacious!* system break-in CD (the track was set to repeat indefinitely during testing).

Music Source: iPod Classic, Wadia Digital 170 iTransport, PS Audio Digital Link III DAC and GCHA headphone amplifier.



AUDIO-TECHNICA ATH-ANC7 \$220

The ATH-ANC7 (now updated to become the ATH-ANC7b) is the flagship, over-the-ear model in Audio-Technica's range of "QuietPoint" active noise-cancelling headphones. As you'll see in a moment, this AT model is simpler in configuration and lower in price than some of the other noise-cancelling headphones in this Guide, but this doesn't mean it has skimped on important technologies in any way. On the contrary, the ATH-ANC7 features very high quality drivers and an effective noise cancellation circuit that together bring you vibrant and expressive sound plus a good measure of peace and quiet—all at a very reasonable price.

FEATURES

- Large-aperture 40mm drivers with neodymium magnets (Audio-Technica uses

similar drivers in its conventional studio monitoring headphones).

- QuietPoint active noise cancellation circuitry is said to filter out up to 85% of environmental noise.
- Headphones can continue to function in passive mode should battery power run out.
- Detachable signal cable allows the headphones to be used purely for noise cancellation with no audio.

ACCESSORIES

- Gold-plated mini-jack-to-1/4" adapter plug.
- Airline adapter plug.
- Detachable signal cable.
- Padded travel case.

SONIC CHARACTER

If I had to sum up the sound of the ATH-ANC7 in just a few words, the two I would choose are "vibrant" and "nuanced." In fact, the ATH-ANC7 can hold its own in toe-to-toe comparison with conventional audiophile-grade headphones, thanks to its rich, pure

overview

Consider this headphone if:

you want a simple, no-nonsense, noise-cancelling headphone whose sound is well-balanced, offers vibrant tonal colors, and is rich in sonic details and textural subtleties. Other models may provide more gongs'n'whistles, but the core performance of this Audio-Technica is tough to beat. It just plain sounds great and is quiet to boot.

Look elsewhere if:

you require maximum levels of noise cancellation (the ATH-ANC7 is excellent in this department, but we've heard one or two models that are a hair better). Also look further if you want extras such as compression compensation circuits, simulated surround-sound modes, telephone headset capabilities, etc.

noise-cancelling headphones

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tonal colors and its ability to render textural and transient details with great clarity and finesse. The only downside (and it is a very small one) is that you can hear a faint bit of amplifier hiss when the noise cancellation/amplifier circuit is switched on. In terms of tonal balance, the ATH-ANC7 offers a slightly warmer-than-neutral sound with a touch (but only a light touch) of midrange forwardness. Bass is rich, extended, and well-defined, yet never exaggerated or overpowering.

MUSICAL EXAMPLE

Audio-Technica's ATH-ANC7 sounds great on most any kind of musical material, but if you want to understand what this headphone does differently and better than other good noise-cancellers, just put on a well-crafted vocal recording. A good example would be "Bye Bye Blackbird" from Patricia Barber's Nightclub [Mobile Fidelity Sound Lab]. The Audio Technica's just nail the dark, smoky, creamy-smooth tonality of Barber's voice and capture the almost infinitesimal vocal inflections that have made this track a favorite audiophile demonstration piece. What's more, the sound of the Barber backing instruments is dead on—especially the rolling chords of the piano, the suave sizzle of brushes on a snare drum head, and the earthy growl of the acoustic bass. Few other noise-cancelling headphones can play music with this kind of vitality and sonic purity.

COMFORT FACTOR

The ATH-ANC7s are generally light and comfortable, though their earcups are just

slightly smaller than on some competing models. If you have big ears (as I do), this means you may have to swivel the headphones back and forth a bit to get the earpads to slip over your ears. Once in place, however, they're extremely cushy.

EASE OF USE

The ATH-ANC7 only has one control—a power on/off switch, meaning this headphone is essentially foolproof. Important hint: do not hold your hands too near the external microphones mounted in the headphones' earcups. If you do, you can inadvertently get a feedback loop going that will make the headphones howl (ouch!) until you move your hands further away.

BOTTOM LINE

In a "walk-softly-and-carry-a-big-stick" way, Audio-Technica's ATH-ANC7 turns out to be one of the most impressive headphones in this Guide. This is a simple, well-rounded headphone that does a very good job of cutting out noise and an even better job of reproducing music—all at a more than fair price. You can spend more if you feel you must, but you'll have a hard time finding a better overall performer. PB

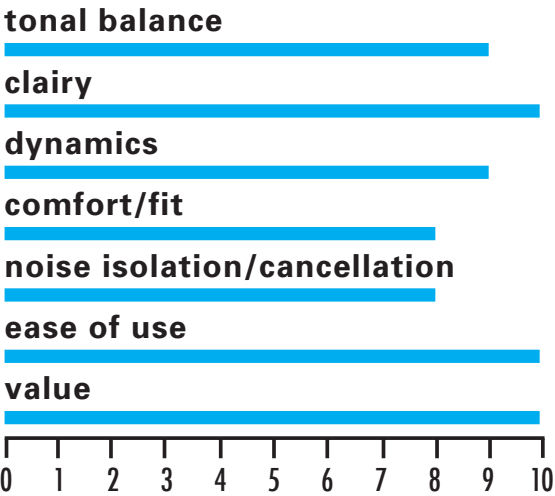


specs/pricing

Frequency response: 10Hz–25kHz
Sensitivity: 109dB
Impedance: 260 ohms
Battery power: One AAA battery
Weight: 7.1 oz.
Price: \$220

Audio-Technica U.S. Inc.
(330) 686-2600
audiotechnica.com

RATINGS



BEATS BY DR. DRE MONSTER CABLE

\$350



More than three years in development, the Beats by Dr. Dre headphones (now called Beats by Dre Studios) are the result of a three-way collaboration between artist and producer Dr. Dre, Interscope Geffen A&M Chairman Jimmy Iovine, and the engineering team at Monster Cable. Described by Monster as “high definition powered isolation” headphones, the Beats have set for themselves the ambitious goal of providing “a brand new level of headphone audio performance with extreme clarity, deep bass and full power which had been lacking in conventional headphones.” Do they succeed?

FEATURES

- 40mm drivers.
- Active noise isolation circuitry said to reduce environmental noise by up to 14 dB.
- Detachable signal cable allows the headphones to be used purely for noise cancellation with no audio.
- Mute button lets listeners temporarily suspend playback to focus attention elsewhere.
- Multi-color power-on light indicates battery status: red = “batteries are good,” amber = “batteries are due for replacement.”
- iSoniTalk cable (included) with built-in mic and call-answer switch enables Beats to serve as a headset for music-enabled cell phones (iPhone, BlackBerry, etc.).
- Gorgeous industrial design developed by Robert Brunner.

ACCESSORIES

- Gold-plated mini-jack-to-1/4-inch adapter.

- Detachable signal cable (with high-quality Monster Cable wiring, of course).
- iSoniTalk headset adapter cable.
- Cleaning cloth with Aegis “Microbe Shield”
- Padded travel case.

SONIC CHARACTER

From the moment you first power them up, the Beats sound dramatic, exciting and evocative—though not necessarily accurate. To explain what I mean, let’s look at what the

overview

Consider this headphone if:

you want a headphone that is exciting and dramatic to listen to—though with tonal balance that is more colorful than accurate. This is one of the few headphones that can capture the deep, throbbing bass you might hear in a club. Note that this headphone that can serve as a headset for music-enabled cell phones. Gorgeous industrial design, too.

Look elsewhere if:

you want maximum noise cancellation (the Beats do an adequate but definitely not great job in this area). Also look further if you’re a fan of natural, neutrally balanced sound (the Beats deliver an intense, almost hyper-vivid sound, but in the process they take some liberties with tonal balance that you may or may not appreciate in the long run).

noise-cancelling headphones

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Beats do with bass, mids, and highs in music. For the most part the Beat's bass is powerful and well defined—just what you'd want. But as notes descend lower, the Beats begin adding an extra measure of “va-va-voom” low-end punch, whether the music calls for it or not. This coloration sometimes sounds exciting, but can also make music sound inappropriately bass-heavy at times.

In the midrange, the Beats have plenty of definition and clarity, but they tend to pull middle frequencies back in the mix, making them sound slightly subdued or withdrawn relative to bass and highs. But higher up, in the upper midrange/lower treble region, the Beats reverse course and actually push higher frequency sounds forward in the mix. As a result the sounds of cymbals, guitar fingering and picking noises, high notes on pianos, and vocal sibilance fairly jump out of these headphones. While this treble boost initially seems to enhance clarity (and can potentially help enliven dull-sounding MP3 tracks), it also puts a bright, penetrating edge on higher quality recordings, which can prove fatiguing over the long haul.

The Beats offer a modest amount of noise cancellation (or “powered isolation,” to use Monster's term), but noise reduction isn't really this headphone's strong point. Drama and excitement is.

MUSICAL EXAMPLES

Put on “The Lesson” from bassist Victor Wooten's *Palmystery* [Heads Up] and you'll hear a jaw-dropping slap'n'pop-style bass guitar solo that's tailor made to show off the things the Beats do well. Wooten slaps low notes with the side of the thumb, creating profoundly punchy low-frequency thumps, then tucks his fingers under the bass's high(er) strings and snaps them upward, releasing hard, bright, percussive counterpoint notes. Adding to the mix are bright handclap- and castanet-like rhythm accents. The whole song works because both the low bass notes and brighter accent notes fall in regions that the Beats emphasizes, and the effect is spectacular, though perhaps overly bright.

But listen to the opening of “The Difficult Kind” from Sheryl Crow's *The Globe Sessions* [A&M] and the downside of the Beats becomes

apparent. The song opens with Crow's voice accompanied only by an electric guitar, and through the Beats two things happen. First, the twang of the guitar becomes unnaturally aggressive, drawing attention away from the vocals. Second, the overtones of Crow's voice get pushed so far forward that, as she sings higher up in her range, her voice sounds progressively more imbalanced, strident, and shrill. The point is that the voicing of the Beats complements some tracks, but not others.

COMFORT FACTOR

The Beats large earcups and plush earpads make them super-comfortable, even for long listening sessions.

EASE OF USE

The Beats are extremely easy to use, and we found their easy-access Mute button a touch

we wish other self-powered headphones offered. The iSoniTalk cable is a welcome feature for those who wish to use the Beats with music-enabled cell phones; it's a feature that no other noise cancelling headphone in this Guide includes.

BOTTOM LINE

The Beats By Dr. Dre sound dramatic and exciting, but not necessarily accurate. They can seem terrific one moment, but become somewhat overbearing the next, depending on whether their colorful voicing matches well with the track you've chosen. Because this headphone's voicing is not neutral, I recommend a try-it-before-you-buy-it approach to see if the Beats' characteristic sound suits your tastes on a broad range of musical material. **PB**

specs/pricing

Frequency response: 20Hz–20kHz
Sensitivity: 110dB
Impedance: Not specified
Battery Power: Two AAA batteries
Weight: Not specified
Price: \$350

Monster Cable
(877) 800-8989
[beatsbydre.com](#)
[monstercable.com](#)

RATINGS

tonal balance

clairy

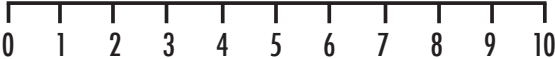
dynamics

comfort/fit

noise isolation/cancellation

ease of use

value



BOSE QUIETCOMFORT 2 \$299



In the world of noise-cancelling headphones there is no more iconic product than Bose's QuietComfort 2 headphone. It arguably enjoys broader distribution, greater name recognition, and wider market acceptance than all other noise-cancelling headphones combined. Sometimes great marketing enables good but not great products to prevail over superior but less well-known competitors, but in other cases market-leading products achieve their iconic status the old fashioned way; namely, they earn their stripes by delivering a well-thought-out, "just-right" blend of desirable qualities at a fair price. We're pleased to report that Bose's QuietComfort 2 headphone belongs in that latter group; in short, it's an industry icon for all the right reasons.

FEATURES

- TriPort headphone structure provides tiny earcup vents that are said to produce "a tonally-balanced audio performance from small, lightweight headphones."
- Patented Bose Acoustic Noise Cancelling technology is said to provide "full spectrum noise reduction."
- Audio attenuator switch, incorporated in the signal cable, with Hi/Lo settings that can be used to "adjust the output volume of different audio sources." The Lo setting is for airline or AC-powered audio devices; the Hi setting is for battery-powered audio devices.
- Detachable signal cable allows the headphones to be used purely for noise cancellation with no audio.

ACCESSORIES

- Gold-plated mini-jack-to-1/4-inch adapter plug.
- Airline adapter plug.
- Detachable signal cable.
- 5-foot extension cable.
- Padded travel case.
- (Optional) Mobile communications kit.

SONIC CHARACTER

Bose's QuietComfort 2 offers solid bass,

overview

Consider this headphone if:

you want a simple, proven solution that offers standard setting noise cancellation capabilities that have rarely been equaled. The Bose offers very good sound quality, and though it is not the last word in clarity or detail (and may have slightly rolled-off highs) it produces a sound most listeners find rich, full, and sweet, yet never exaggerated.

Look elsewhere if:

you require a headphone that offers a back-up passive mode in case battery power runs out (the Bose has no passive mode). Also look further if you crave maximum sonic transparency and openness or would like specialized sound processing modes designed to enhance the sound of compressed MP3 files or to add simulated surround effects.

noise-cancelling headphones

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smooth and evenly balanced mids, and delicate though perhaps just slightly rolled-off highs. Considered on the whole and weighed from top to bottom, the QuietComfort 2 is one of the more neutrally balanced headphones in our survey. It offers good measures of detail, clarity, and nuance, although you may have to listen carefully for a few minutes before this fact fully sinks in (headphones that offer a more overtly bright, treble-forward balance can initially seem clearer, though in fact they're not). There are, however, a few headphones that do legitimately offer a little more sonic "resolving power" than the Bose, meaning that they do a better job of teasing out low-level textural and transient details.

The QuietComfort 2's Noise cancellation capabilities, especially in louder environments, are about as good as they get—a testimonial to the time-proven fundamentals of Bose's

design. Sony's MDR-NC500D might, however, enjoy a narrow edge for use in not-so-loud environments (because the Sony offers three different, context-specific noise filters).

MUSICAL EXAMPLE

Two tracks that nicely illustrate the strengths of the QuietComfort 2's are "This Old Guitar" and "He Was The King" from Neil Young's *Prairie Wind* [Reprise]. The former is a lovely duet between Young and Emmylou Harris accompanied by acoustic guitar (actually by Hank Williams's "old guitar" to be exact), pedal steel guitar, and bass. Much of the beauty of the track revolves around its easygoing clarity, its earthy simplicity, and the exquisite way in which Harris's backing vocals complement Young's voice. The Boses are just about perfect for this material because they reproduce it in an effortless, natural sounding

way without adding any "hey-look-at-me" artifacts of their own. But make no mistake, the Boses can also rock when the need arises, as "He Was The King" demonstrates. The track is Young's homage to the more swaggering side of Elvis Presley's persona, and it rolls forward with a bouncing, Western-swing-inflected beat that make you want to get up and boogie. The Bose's do their part by capturing the lower frequency rhythm instruments (bass and drums) with great natural warmth and rollicking punch, while presenting Young's piquant harmonica accents with unforced clarity and just the right amount of "edge."

COMFORT FACTOR

The QuietComfort 2's are light, compact, and extremely comfortable, and form a good seal around your ears.

EASE OF USE

The Bose QuietComfort 2 offers simple, foolproof, single-switch operation. The only minor tradeoff is that there is no back-up passive mode if battery power runs out; when you switch the Boses off (or the battery gives out), all sound goes away.

BOTTOM LINE

As we said above, Bose's QuietComfort 2 is an industry icon for all the right reasons. It offers very good core sound, great noise reduction capabilities, and terrific ease of use, and for these reasons earns a "Playback Recommended" award. But it also offers one more intangible benefit that will count for a lot in some buyers' minds: namely, a long

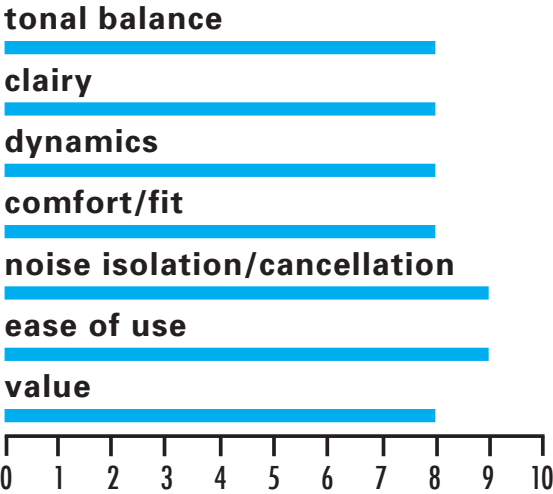
track record for having met the needs and expectations of thousands upon thousands of satisfied customers. **PB**

specs/pricing

Frequency response: Not specified
Sensitivity: Not specified
Impedance: Not specified
Battery power: One AAA battery
Weight: 6.9 oz.
Price: \$299

Bose
(800) 444-2673
bose.com

RATINGS



CREATIVE LABS AURVANA X-FI \$300



The Aurvana X-Fi is Creative Lab's premier headphone, both for audiophile and noise-cancelling applications. Unlike most of the headphones in our survey, however, the Aurvana X-Fi not only provides switch-selectable noise-cancelling functions but also offers two other user-selectable sound enhancement modes. The first is the X-Fi Crystallizer mode that, according to Creative, "restores the detail and vibrancy to your compressed music and movies" through a process where "highs and lows are intelligently enhanced." The second is the X-Fi CMSS 3D mode that is said to expand "stereo MP3s and digital movies into virtual surround sound."

FEATURES

- 40mm drivers with neodymium magnets.
- Active noise cancellation circuitry said to reduce environmental noise by up to 20 dB.
- Headphones can continue to function in passive mode should battery power run out.
- Detachable signal cable allows the headphones to be used purely for noise cancellation with no audio.
- Illuminated on/off switches for power, noise cancellation, X-Fi Crystallizer mode, and X-Fi CMSS 3D mode.
- Thumbwheel-type volume control.

ACCESSORIES

- Gold-plated mini-jack-to-1/4" adapter plug.
- Airline adapter plug.
- Detachable signal cable.
- Extension audio cable
- Padded travel case.

SONIC CHARACTER

Before I discuss the Aurvana's signature sound, let me point out that its noise cancellation circuitry is simply first rate. In noisy environments this headphone is quiet with a capital "Q"—as good as the best I've ever heard.

Sonically, the Aurvana X-Fi is an accomplished all-rounder that offers wonderfully neutral voicing and a smooth, evenly balanced presentation that is easy to listen to for hours on end. The X-Fi also

overview

Consider this headphone if:

you want a model that provides superb noise cancellation and a smooth, natural, evenly balanced sound. Sonic resolution and detail are very good, too, though not quite best in class. Also consider this model if you'd like to sample its X-Fi Crystallizer and X-Fi CMSS 3D sound enhancement modes—modes that will suit some (but not all) tastes.

Look elsewhere if:

you crave a vibrant, dynamically alive sound that is rich in low-level sonic details; while the Aurvana sounds very good, its strongest competitors narrowly edge it out in terms of sonic performance. Also look further if you'd rather not pay for digital "sound enhancement" modes you're not inclined to use.

noise-cancelling headphones

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provides very good levels of detail and clarity without ever sounding edgy, “sterile,” or artificially vivid. While the best competing models offer slightly deeper bass and more expansive highs, plus a somewhat greater sense of sonic purity, focus and resolution, the Aurvana can hold its own in all those areas—and without adding “impressionistic” colorations.

I had mixed reactions to the X-Fi Crystallizer and CMSS 3D modes. As advertized, the Crystallizer mode adds a measure of extra bass punch and treble “snap” that can help perk up severely compressed or dull-sounding tracks. The tradeoff, however, is that the mode also tends to undercut the Aurvana’s ordinarily smooth sound, making higher quality recordings (especially uncompressed tracks) sound artificially pumped-up and brash.

The X-Fi CMSS 3D mode struck me as more of a gimmick than a genuinely useful feature. It imparts a spacey, phase-shifted, and slightly brittle-sounding pseudo-surround effect whose appeal quickly wears thin—largely because it robs the Aurvana of some of its characteristic smoothness and unforced clarity. My advice: Try out the CMSS 3D mode when you’re in the mood for sonic novelties, but turn it off for serious music listening.

MUSICAL EXAMPLES

“Stormy Monday” from the late Eva Cassidy’s *Live At Blues Alley* [Blix Street] makes a perfect showcase for the Aurvana X-Fi’s strengths. The track has a hearty, energetic, recorded-before-a-live-audience feel that the X-Fi’s capture quite effectively.

Two notable high points are Cassidy’s heart-wrenchingly intense vocals (which can, through some headphones, sound a little raw at times) and a blistering electric guitar solo heard midway through the song (a solo that, though wonderful, can sometimes sound a little too “blistering” for its own good). But what impressed me was the way the Aurvana X-Fi’s caught the energy and punch of the performances while at the same time taming (yet not erasing) their occasional rough edges. The Aurvana X-Fi finds a sweet spot of sorts



where it reveals the good qualities in well-made recordings while tempering the flaws in less-than-perfect tracks.

COMFORT FACTOR

Though it is neither the lightest or smallest headphone in this survey, the Aurvana X-Fi is supremely comfortable thanks to capacious earcups and earpads that offer a just-right blend of cushioning and support.

EASE OF USE

The Aurvana places all user controls (four switches and one volume control) on its right-side earcup. On one level this is convenient because it allows one-hand operation, but it also means the noise cancellation, X-Fi Crystallizer mode, and X-Fi CMSS 3D mode switches are packed side-by-side, which can be a bit awkward for the fumble-fingered among us.

BOTTOM LINE

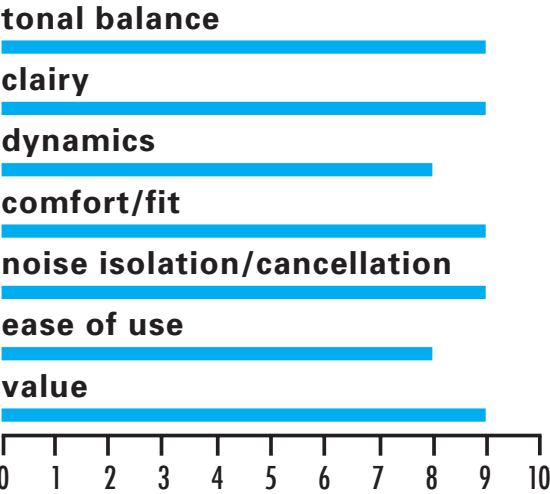
The performance fundamentals of Creative’s Aurvana X-Fi headphones are excellent, with noise cancellation as a particular strength (this is a headphone I’d want to have along on a really noisy plane flight). Core sound is smooth, rich and natural, though perhaps not quite the last word in terms of resolving low-level textures and details. The X-Fi Crystallizer and CMSS 3D modes are, perhaps, an acquired taste; I did not find them appealing over the long haul, but I can see how others might. PB

specs/pricing

Frequency response: 20Hz–20kHz
Sensitivity: 105dB
Impedance: 420 ohms
Battery Power: Two AAA batteries
Weight: 8.6 oz.
Price: \$300

Creative Labs Inc.
(408) 428-6600
us.creative.com

RATINGS



DENON AH-NC732 \$300



Before we begin, though, you may want to take a quick look back at the Overview & What to Look For section, which provides a useful background on Noise-Cancelling Headphones.

In this review I'll take a look at Denon's latest entry in the noise-cancelling headphone marketplace—the AH-NC732 (\$300). Unlike many of the noise-cancelling headphones I have tested thus far, the AH-NC732 is a light, compact, *on-ear* model (most competing noise-cancellers I've tried have been over-the-ear models) that comes with a useful though by no means extravagant set of accessories.

Although the Denon tips the scales at a feathery 5.1 oz., its sound, as you'll see in a moment, certainly packs a heavyweight punch

FEATURES

- 40mm drivers with neodymium magnets.
- Denon Acoustic Optimizer circuit is said to improve sound quality while cancelling up to 99% of ambient noise.
- Lightweight (5.1 oz.), collapsible design with rigid, vibration resistant aluminum connector cover.
- High-grade “protein” leather-covered earpads with low-repulsion urethane foam ear cushions said to provide enhanced comfort for longer listening sessions.
- Detachable signal cable allows the headphones to be used purely for noise cancellation with no audio.

ACCESSORIES

- Gold-plated mini-jack-to-1/4-inch adapter plug.

- Airline adapter plug.
- 27.5-inch and 59-inch detachable signal cables (different lengths for different listening settings).
- Padded travel case.

SONIC CHARACTER

Denon's AH-NC732 is one of the better-balanced noise-cancelling headphones I've encountered, combining much (though not all) of the clarity and sonic transparency of a headphone such as Audio Technica's ATH-ANC7 (reviewed elsewhere in this Guide)

overview

Consider this headphone if:

you want a light, simple-to-use, *on-ear* noise-cancelling headphone that offers very good noise suppression and sound quality, with a pleasing mix of clarity and neutral tonal balance tempered by a just-right touch of natural warmth. The Denons can collapse to fit in very small spaces—or to be packed up in their compact carrying case (included).

Look elsewhere if:

you would prefer the somewhat different feel and potentially better acoustic isolation that over-the-ear headphones might afford. Also look further if you want a headphone that offers switch selectable sound enhancement or simulated surround sound processing modes.

noise-cancelling headphones

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with the natural, uncolored tonal balance of a headphone such as Creative Lab's Aurvana X-Fi (also reviewed in this Guide). Extreme highs are just slightly rolled-off, but not to a terribly noticeable degree (in fact, I think some listeners would interpret those slightly subdued highs as freedom from edginess and glare). Two particularly appealing aspects of the AH-NC732 are its solidly weighted bass (some of the best I've heard from an on-ear design) and it's gentle, just right touch of natural warmth, which makes the headphone sound inviting and engaging. At 105dB, the Denon's sensitivity is decent, but falls 4-5dB below that of the class leaders, meaning you'll need to turn up your iPod to get optimal output from these 'phones. But overall, the AH-NC732 offers a pleasing mix of virtues.

The AH-NC732's active noise cancellation circuit is quite effective, though I felt its on-ear

design offered slightly less acoustic isolation (that is, the ability to block out rather than "cancel out" incoming noise) than some of the better over-the-ear models I've tested.

MUSICAL EXAMPLE

Put on "Split Window" from jazz/bluegrass/country bassist Viktor Krauss's debut album *Far From Enough* [Nonesuch] and the Denons will immediately reward you with a warm, rich rendition of the brooding and highly atmospheric track. Through the AH-NC732's Krauss's opening acoustic bass solo has an appropriately deep, sonorous growl while the bass drum that provides a rhythmic foundation for the song has near-ideal low frequency weight and punch. Later, higher percussion instruments join, followed by Bill Frisell's haunting electric guitar, which picks up and then carries the melodic theme, putting forth evocative lines that float like question marks above the bass and percussion commentary going on below. The Denons do a fine job of expressing the lush and sumptuous vibe of the track, and especially of expressing the soulful, melancholy lilt of Frisell's guitar. But that said, the headphones also come up a bit short in that they cannot quite capture the finely filigreed treble percussion and guitar details and harmonics that can and should give this track an air of mystery, suggesting a giant, wide-open recording space. The good news, here, is that the AH-NC732's strengths are compelling and self-evident, while its shortcomings are relatively minor "sins of omission."

COMFORT FACTOR

The AH-NC732's are extremely light, compact, and very comfortable, although the feel of on-ear headphones may not suit all tastes. The seal that the Denons achieved on my ears was good, but perhaps not quite as good as that of some of the better over-the-ear models I've tried. The trade-off, of course, is that the Denons weigh roughly 2-3 oz. less than competing over-the-ear models do—a difference you can really notice over time.

EASE OF USE

The AH-NC732 offers simple, foolproof, single-switch operation. There is also a back-up, passive mode if battery power runs out, though I found that sound quality was much, much better when the 'phones were powered up.

BOTTOM LINE

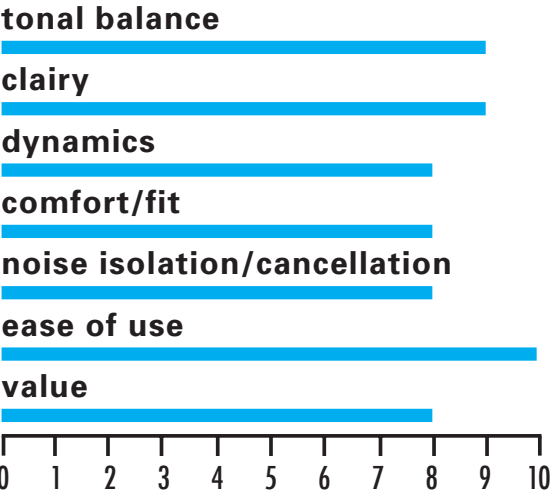
Because its overall sound is well balanced and clearer than most, Denon's AH-NC732 is easy for us to recommend, especially for listeners who will appreciate its compact, lightweight design. In particular, this Denon does a better than average job of cancelling out ambient noise while offering solid and well-defined bass and smooth, revealing mids. **PB**

specs/pricing

Frequency response: 5Hz–28kHz
Sensitivity: 105dB
Impedance: 40 Ohms
Battery power: One AAA battery
Weight: 5.1 oz.
Price: \$300

Denon Electronics (USA), LLC
(201) 762-6500
usa.denon.com

RATINGS



JVC HA-NC250

\$200



My favorite coffee hangout and Wireless hotspot is in a college town and so attracts the raucous crowd you'd expect. I like to go for a 16-oz. triple latte and then sit with my laptop and surf the 'net while I plug into my selection of iTunes favorites. But frankly, between Becky at the next table talking loudly on her cell about her disastrous date with Bernard and Mr. tattooed-and-pierced wanna-be rocker humming and, gasp, actually singing bits from his in-progress Goth-inspired downer song lyrics . . . well, it can be a bit disorienting, to say the least.

That's why when Editor-in-Chief Chris Martens asked me if I wanted to evaluate JVC's HA-NC250 noise canceling headphones, I jumped at the chance. The blurb on the product box said the NC-250s cut out up to 85 percent of ambient noise. Wow, I thought: 85 percent less of Becky and Tattoo Boy. Sign me up!

By the way, you'll want to check out the reviews in this section of noise cancellers, including those from Audio-Technica, Bose, Creative Labs, Monster Cable (Beats by Dr. Dre), Sennheiser, and Sony. In my opinion, the JVC's compare most closely with the Beats by Dr. Dre Studio headphones from our earlier test group.

FEATURES

- 40mm drivers
- Active noise-reduction circuitry that claims an 18dB reduction (at 150Hz)
- On/Off button and detachable cable (headphones cancel some noise without circuitry activated)

- Cushioned ear pads

ACCESSORIES

- Handsome zipper/canvass carrying case with inner zip-bag for adapters
- Gold-plated 1/4-to-mini adapter
- Two-prong-to-mini airplane adapter plug
- Detachable cable
- Earphones twist to fold flat

overview

Consider these headphones if:

you find your iPod ear buds produce anemic sound and your desktop PC or Mac speakers just don't come near producing a satisfying sonic envelope and/or you find yourself often sipping lattes at your favorite (but noisy) Internet café and can't seem to shut the racket out. (The JVCs also work well with higher-end audio gear.)

Look further if:

you actually like listening in on loud conversations nearby. Also look further if you want more sophisticated earphone features, such as digital sound enhancement modes or more elaborate noise cancellation circuitry. (For digital enhancements, however, you can "cheat" by using add-on software programs such as iWOW.

noise-cancelling headphones

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SONIC CHARACTER

If you can visualize a smiley face (and who can't), you have a pretty good diagram of the frequency response curve of the HA-NC250. This headphone likes bass and it also gloms on to high voice and upper instrumentation. The middle frequencies, however, seem a little subdued. But even with this shortcoming (and many wouldn't necessarily call this a shortcoming—especially those whose tastes favor the frequency extremes over the middle ranges), the JVCs perform well in many application settings. For example, they win hands-down in comparison to standard earbuds for an iPod (I tested them with an iPod Nano; worth the price of admission alone if standard earbuds are your current iPod gateway). They also perform well with a laptop in the kind of noisy environments I'm used to inhabiting. I didn't take them on a plane ride (we're in the middle of an economic downturn, don't you know), but I'd venture to say that they'd do swell in cutting out your chatty neighbor's life story while you tune in to the in-flight movie or audio selections. I also tested them with standard DVDs on my Mac's video player, and they performed well in that environment, too, given that I live in a noisy household. For high-end stereophiles, however, pricier (and more neutrally voiced) earphones may be the way to go.

MUSICAL EXAMPLES

Did you know that Dirty Harry's (aka Clint Eastwood) son Kyle is a talented jazz composer and skilled bassist (both standup, electric, and fretless electric)? I often use Kyle

Eastwood's *Paris Blue* [Rendezvous] as a test disc because its content spans the entire audio spectrum, and well, because I like it.

The ambling laid-back tune "Sulferino" has a nice cross-range medley of electric piano, fretless bass, and sax, with the whisper of brushed snare and cymbals underpinning the ensemble to make this track a good test for full-range headphones (and speakers). The electric piano has delicate runs in the middle range, the sax soars up high, and the fretless bass holds down the bottom end. The HA-NC250s handled the upper and lower extremes well, but less so the middle frequencies. And the "whispers" tended to get lost. Even so, I found myself listening to this track again and again and enjoying the experience each time.

Perla Batalla singing "Bird on a Wire" from the soundtrack of the Leonard Cohen tribute DVD *I'm Your Man* [Verve Forecast], is a nice test song for midrange frequencies. Batalla's full-bodied alto, complete with a touch of vibrato edginess, evokes the kind of sadness Cohen meant for the song to convey when he wrote it. I've heard that vibrato edge given more definition by other headphones. On the other hand, when Batalla soared high, as she does at the end of the piece, and when some of the higher chords of the simple guitar accompaniment came along, both the singer's voice and the guitar chords rang true, helping to make the listening experience enjoyable.

COMFORT FACTOR

The ear pads of the HA-NC250s don't completely envelop your ears, which I like because it avoids that kind of sweaty, suction-

cup feel you get with some 'phones. The soft foam pads allow extended use without pronounced ear fatigue and the headphones are so light you might forget you're wearing them.

EASE OF USE

Once you've assembled the NC250s, they couldn't be easier to use. But there is one small catch: the JVCs' battery compartment is hidden beneath one of the earpads, meaning you'll have to remove the pad every time you install a new battery. Getting the ear pad off

specs/pricing

Frequency Response: 8Hz–24,000Hz (power on)
Noise Reduction: 18dB at 150Hz
Sensitivity: 102dB/1mW (power on)
100dB/1mW (power off)
Power Supply: AAA Battery (DC 1.5V) x 1
Battery Life: Approx. 50 hours (using Alkaline AAA battery); Approx. 20 hours (using Manganese AAA battery)
Cord Length (detachable): 3.9 feet
Weight: (incl. battery) 5.30 oz.
Warranty: One year, parts and labor
Price: MSRP \$200 (Half that on some discount Web sites)

JVC Americas
(800) 252-5722
[JVC.com](#)

the enclosure in order to insert the battery isn't for the faint of heart. OK, it's not that bad, but enough of a challenge to deserve a mild ding in the ease-of-use category.

BOTTOM LINE

The JVC HA-NC250s are decent performers and all that some folks may need, especially if most of their listening is done through an iPod or a laptop in noisy settings. In fact, the ability to fold the earphones flat and the nice reinforced case make them an easy product to transport unscathed into some bustling environments (think college kids gone wild). But if your musical tastes call for high levels of detail and definition, or more neutral tonal balance—especially in the critical middle frequency band, then you may want to move up to a more sophisticated model, perhaps in a higher price range. PB

RATINGS

tonal balance

clairy

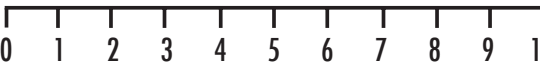
dynamics

comfort/fit

noise isolation/cancellation

ease of use

value



SENNHEISER PXC 450 \$400



The German firm Sennheiser is a fierce competitor in all segments of the headphone and earbud marketplace and the PXC 450 is the company's flagship noise-cancelling model. From the moment you first unpack these phones you begin seeing and sensing various visual and tactile cues that remind you of their German heritage. There's a certain fineness of fit and finish about the PXC 450's—a precision in the way their ear cups fold out and click into position before use—that is reminiscent of the detail touches you might find on a fine German automobile. What's more, the PXC 450's leverage Sennheiser's NoiseGard 2 circuitry and wealth of know-how accumulated through decades of experience in building award-winning audiophile headphones. That said, the PXC-450 is also the most expensive headphone in this survey. Does its sound justify its price?

FEATURES

- Earcups provide patented adaptive baffle damping, while drivers incorporate Duofol diaphragms—both features said to enhance sound quality.
- Proprietary Sennheiser NoiseGard 2.0 technology is said to eliminate up to 90 percent of environmental noise.
- Headphones can continue to function in passive mode should battery power run out.
- Detachable signal cable allows the headphones to be used purely for noise cancellation with no audio.
- TalkThrough mode temporarily amplifies room sounds and the sound of your voice, allowing users to participate in in-room conversation

without taking off the headphones.

- Control switches for Volume -, Volume +, TalkThrough, headphone On/Off, and NoiseGard 2.0 Normal/Bypass.
- LED status indicator: red = headphone on, flashing red = battery needs replacement, green = talk-through mode engaged, LED off = headphone is in passive mode.

ACCESSORIES

- Gold-plated mini-jack-to-1/4-inch adapter plug.

overview

Consider this headphone if:

you simply like objects that evince old-school Germanic precision, fit and finish. Also strongly consider the PXC 450 if you think you'd enjoy a headphone that offers decent sound and good noise-cancellation capabilities in active or Normal mode, but that "shifts gears" when used in passive or Bypass mode to behave more like a serious audiophile headphone.

Look elsewhere if:

you want a headphone that sounds its best with noise cancellation circuitry turned on (frankly, the PXC 450 sounds best in passive mode). Also look further if you seek maximum bang for your bucks; though undeniably well made, the PXC 450 carries a premium price for what it is and does.

noise-cancelling headphones

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- Airline adapter plug.
- Detachable signal cable.
- Padded travel case.

SONIC CHARACTER

What we have here, really, is a tale of two headphones in that PXC 450 exhibits two different sonic personas, depending on whether it is used with its noise-cancelling circuit turned on or off. Used with the NoiseGard 2 circuit turned on, the Sennheisers exhibit tonal balance that seems skewed in a subtle way, with bass that is somewhat recessed, mids that are about right, and highs that are just slightly too prominent. The net effect is of a headphone that offers bright, crisp clarity but that is lacking somewhat in terms of natural warmth and appropriate bass weight and punch.

But flip the NoiseGard 2 switch to its Bypass setting and a different sonic persona emerges. In a subtle but significant way bass comes forward in the mix, while highs pull back just a bit, leaving you with sound that is better balanced and more musically rewarding overall. Unlike any of the other headphones in this survey, the PXC 450 actually sounds better in passive mode than when its noise cancellation circuitry is turned on.

Noise cancellation is very good, but not quite up to the standards set by the best ‘phones in this survey, in part because the NoiseGard 2 circuit allows a bit more high-frequency noise to come through than the best systems do.

MUSICAL EXAMPLE

One of the coolest records *Playback* has

reviewed in recent months is the Conspirare (Craig Hella Johnson and Company of Voices) performance of Tarik O'Regan's *Threshold of Night* [Harmonia Mundi, SACD]. One of my favorite compositions (and one of the choir's favorite concert pieces) is the third movement of O'Regan's *Triptych*, entitled "Tryptych III. From Heaven Distilled a Clemency." The composition takes an at once serious and yet joyous and enthusiastic look at our inevitable transition from the here to the hereafter, so that the choir and its accompanying orchestra simply "swing" on the piece. The Sennheisers



did a fine job of presenting small treble details and textures that revealed the smooth, powerful unity of Conspirare's ensemble singing, an area where the choir excels. But at the same time, the PXC 450s lost some of the desirable "swinging" quality of the piece, because their tonal balance undercut the propulsive thrust of the lower voices and strings, robbing the piece of vital energy.

On this track and many others, I felt the PXC 450's sounded better balanced (that is, richer and more full-bodied) once their noise-cancellation circuit was set to Bypass mode.

COMFORT FACTOR

The PXC 450 is a relatively large headphone (the ear cups are bigger than most) with thick, cushy ear pads. I found the Sennheisers extremely comfortable, but I am a relatively big guy, which means the PXC 450's big ear cups weren't a problem for me. I could see how individuals of smaller stature might find the Sennheisers a bit bulky.

EASE OF USE

The PXC 450's many flush-fit control switches and buttons look cool, but they aren't easy to use from an ergonomic perspective. I would suggest that Sennheiser give the switches a set of raised nubs so to make them easier to identify and use by touch alone. Finally, the NoiseGard 2 Normal/Bypass switch is buried under one of the ear cup hinges, meaning you have to take the 'phones off to access the switch; a more accessible location would be better.

BOTTOM LINE

We had mixed reactions to the PXC 450. The core, passive sound quality of the headphone is very, very good, but that sound quality took a subtle but audible turn for the worse once the NoiseGard 2 circuitry was engaged. The NoiseGard 2 circuit, for its part, does a good but certainly not state-of-the-art job of noise reduction. While the PXC 450's apparent build-

quality is very high, I don't think that fact fully justifies the headphone's steep asking price. **PB**

specs/pricing

Frequency response: 8Hz–28kHz
Sensitivity: 108dB
Impedance: 750/150 ohms (active/passive)
Battery Power: One AAA battery (but note, unit is supplied with two batteries)
Weight: 8.5 oz.
Price: \$400

Sennheiser Electronic Corp.
(860) 434-9190
sennheiserusa.com

RATINGS

tonal balance (noise-cancelling on)

clairy

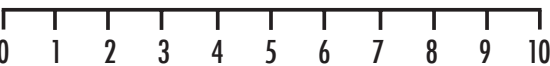
dynamics

comfort/fit

noise isolation/cancellation

ease of use

value



noise-cancelling headphones

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SONY
MDR-
NC500D
\$400



Sony's MDR-NC500D noise-cancelling headphone is chockfull of advanced technologies—so much so that you'll need to read the manual to appreciate all it can do. For starters the headphone offers true *feedback-type* noise-cancelling, where noise-sensing microphones are located inside the headphone ear cups, not on the outside as in most designs. This approach is said to yield superior noise cancellation. Sony uses a sophisticated DSP-driven system to compare audio and noise signals and then to apply noise filters and EQ as needed. What's more, when the headphone is first powered up, an AI (artificial intelligence) circuit analyzes noise and then selects one of three available noise filters to achieve optimal noise reduction for the given context. Add in high-tech drivers and amplifiers and you've got one of most advanced noise-cancelling headphones yet built. But how does it work in practice?

FEATURES

- 40mm dome-type drivers with neodymium magnets.
- BTL (bridged transformer-less) amplifier is said to produce "a powerful sound with a wide dynamic range."
- Unique "feedback-type" noise reduction system places noise-sensing microphones *inside* the headphone ear cups—not on the outside as in most other noise-cancelling designs. The feedback-type design is said to be more effective and to have greater perceived impact than other, more traditional types of noise cancellation systems.
- Sony's proprietary AI (Artificial Intelligence)

noise cancellation circuitry, used in conjunction with DSP-driven equalization, is said to eliminate up to 99% of environmental noise. The AI system can automatically invoke, or users can manually select, any of three noise cancellation modes:

- NC Mode A (for use in airplanes),
- NC Mode B (for use in buses or trains), or
- NC Mode C (for use in offices or study environments).

- Detachable signal cable allows the

overview

Consider this headphone if:

you want noise-cancelling headphones that can apply specific noise filters for different listening environments (airplanes, trains/buses, offices/study rooms). Also consider the MDR-NC500D if you seek a lively, highly dynamic sound, but with a certain amount of bass enrichment. Finally, check out this Sony for its built-in, rechargeable Lithium-ion battery.

Look elsewhere if:

you seek optimally accurate tonal balance (the Sony puts out a little too much bass to qualify) or maximum clarity and transparency (the Sony is good in both departments, but some competitors do even better—and for less money). Note that there is some learning curve involved in figuring out how to tap the Sony's many advanced features.

noise-cancelling headphones

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- headphones to be used purely for noise cancellation with no audio.
- Headphones come with built-in, rechargeable Lithium-ion batteries (charger included), plus a back-up external battery pack power by two AA batteries.
 - Monitor mode lets listeners temporarily suspend playback to focus attention elsewhere.
 - Control switches for headphone On/Off, AI On/Reset/Mode Select, monitor mode On/Off

ACCESSORIES

- Gold-plated mini-jack-to-1/4-inch adapter plug.
- Airline adapter.
- Two detachable signal cables (.5M and 1.5M).
- AC charger for Lithium-ion battery.
- Back-up battery pack (2 x AA) with detachable signal/power cable.
- Padded travel case.

SONIC CHARACTER

This headphone offers a lively, expressive sound with serious dynamic clout, and it delivers—over most of the audio spectrum—pleasingly neutral tonal balance. The only deviation from accuracy occurs down in the bass region, where the MDR-NC500D consistently pushes low frequency notes too far forward in the mix (a characteristic some might enjoy, but others might find overbearing). The Sony offers good measures of clarity and detail, though it is narrowly edged-out in both respects by at least one other headphone in our survey (the Audio-Technica ATH-ANC7

from Part 1). Noise cancellation in highly noisy environments is as good as I’ve heard, but the MDR-NC500D also offers the benefit of being able to apply different noise filters for different listening contexts—a feature no other headphone in our group offers.

MUSICAL EXAMPLES

Tim Ries’s *Stones World* [Sunnyside], as reviewed in *Playback* 14, is a superb world music/jazz adaptation of some of the Rolling Stones’ most evocative songs and as such it makes a good test disc. One of my favorite tracks is the exuberant Puerto Rican rendition of “Under My Thumb” where a red-hot Latin rhythm section sizzles and drives the song forward with wildly syncopated beats. The Sony’s do a great job with the track, partly because they cleanly delineate the voices of the various instruments—especially the percussion instruments—and partly because they capture the unstoppable, locomotive-like energy and dynamic drive of the whole rhythm section. The only catch is that the Sony makes the electric bass and low percussion instruments, which play a big role in the mix, sound excessively prominent. Fortunately, this bass-forward characteristic isn’t too distracting on “Under My Thumb,” but it sometimes can be on other kinds of material.

COMFORT FACTOR

The Sony’s are light and compact, and provide a very good seal over your ears. The outboard backup battery-pack cable is a bit cumbersome to use, though, partly because the headphone end of the cable has two plugs

(one to supply power, the other for audio signals) and partly because the 2 x AA battery pack is relatively heavy.

EASE OF USE

It takes a bit of learning to master the Sony’s Monitor mode and On/Off switches (one is a pushbutton switch, the other a slide switch), and especially to understand how to operate the multi-mode AI noise cancellation control. Be aware, too, that the headphone provides separate jacks for its audio signal cables and power/charging cables.

BOTTOM LINE

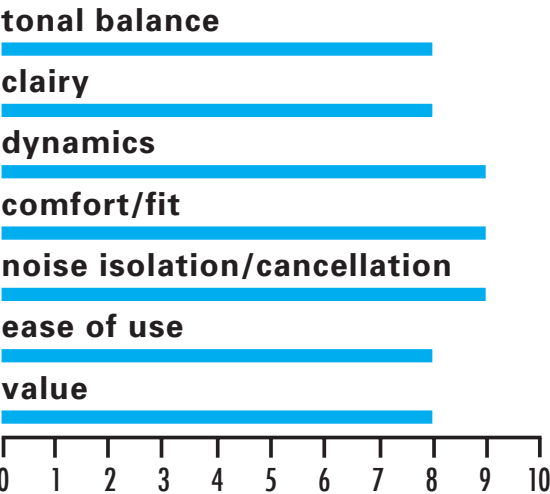
Sony’s MDR-NC500D earns a “Playback Recommended” award, in spite of its tendency toward a bass-forward sound, because it is in so many other respects a wonderful headphone. It is fun to listen to, sounds dynamically alive, is well-balanced over most of the audio spectrum, and offers much better than average clarity and detail. Throw in the fact that the Sony offers the highest-tech noise cancellation circuitry around, plus the convenience of rechargeable Lithium-ion batteries, and you’ve got a winner. PB

specs/pricing

Frequency response: 5Hz–24kHz
Sensitivity: 102dB
Impedance: 40 ohms
Battery Power: Built-in Lithium-ion battery, or two AA batteries in external power pack
Weight: 6.9 oz.
Price: \$400

Sony Electronics
[sony.com/news](#)

RATINGS



HIGH PERFORMANCE HEADPHONES: AN OVERVIEW & WHAT TO LOOK FOR

This section of the *Playback* Headphone Buyer's Guide focuses on high-performance headphones. Models in this group are not necessarily compact or particularly light in weight, nor do they provide any kind of active noise cancelation; instead, their single-minded focus is on achieving higher and higher levels of sound quality.

In fact, many enthusiasts are drawn to headphones of this type specifically because they represent a viable alternative to purchasing giant, multi-thousand-dollar high-end loudspeaker systems—systems whose prices can run well up into the five-figure range (or beyond). The appeal of high-performance headphones, then, revolves around the fact they offer an alternate path to the audio “promised land”—one that offers us true sonic greatness at a pennies-on-the-dollar price.

We present reviews of 11 very strong performers—seven priced at or below \$500 each, and four priced from \$700 on up. If those prices sound steep, remember that these “cans” aim to meet or beat the sound quality of speaker systems 10 or even 20 times their price! Viewed from that frame of reference, even the most expensive model here could legitimately be called a bargain.

TWO VERY IMPORTANT NOTES

1. While some headphones in this survey can, in a pinch, be powered directly from an iPod, the fact is that all 'phones of this quality should ideally be driven by good, powerful, high-performance headphone amps.
2. High performance is a “double-edged” sword: be aware that the same qualities that allow headphones in this group to reveal the subtlest aspects of recorded music *also* make them capable of exposing even fairly minor flaws in your ancillary equipment.

ABOUT PLAYBACK REVIEWS

As always, *Playback* reviews are not written with a “shootout” mentality; typically, there is no one “right” choice or “best” product. Instead, consider our reviews as fact-finding tours where we'll learn about the sonic character of each headphone under review, talk about the strengths and weaknesses of each model, and see what levels of performance can be achieved at various price points. If/when models distinguish themselves within this already select group, we'll denote this fact by awarding our distinctive “Playback Recommended” logo.

WHAT TO LOOK FOR



Tonal Balance—The ability to produce smooth, evenly balanced bass, mids, and highs, with nothing exaggerated, and nothing left out.



Clarity—Accurate reproduction of transient sounds and musical textures—such as the sound of a pick on guitar strings or the shimmer of cymbals.



Dynamics—The ability to reveal contrasts between loud and soft passages in music without audible stress or strain.



Comfort/Fit—Does it accommodate a wide range of listeners and fit easily on your head without applying too much (or too little) pressure?



Isolation—Some people prefer 'phones that block out external noises, while others like 'phones that let them hear household sounds (e.g., doorbells, phones ringing, family members calling out, etc.). We'll indicate whether the phones offer high or low levels of noise isolation.



Value—Are you getting your money's worth?

Dare to be Demanding—Don't stop looking until you find headphones that fully satisfy your personal standards for musical realism. After all, that's the whole point of choosing high performance headphones in the first place.

AUDIO-TECHNICA

ATH-A700

\$299



Audio-Technica describes its mid-priced ATH-A700 headphones as a models designed to deliver “audiophile-quality acoustic performance with full, rich balanced bass.” At \$299, the ATH-A700 is less expensive than many of the ‘phones in this survey, and it is also—unlike most of the ‘phones in the test group—a “closed-back” design, meaning that its earpieces are fully enclosed, not vented. Given these differences in price and technology, I wanted to see how the Audio-Technicas would compare and now that I’ve heard the ATH-A700 in action, I’m especially glad we invited it to the party; it acquitted itself very well—especially so in light of its price.

FEATURES

- Closed-back design with “Double Air Damping System” said to promote “deep bass.”
- Proprietary, large-aperture 53mm drive units with neodymium magnets and voice coils wound with copper clad aluminum wire.
- Oxygen free copper, cloth-sheathed connecting cord with gold-plated jacks.
- Self-adjusting “3D Wing Support Housing” promotes comfortable support.

ACCESSORIES

- Gold-plated mini-jack-to-1/4-inch adapter.

SONIC CHARACTER

Though a bit bright-sounding straight from the box, the ATH-A700 quickly loosened up and settled into a rich, engaging, and slightly warmer than neutral sound that complements

most types of music. Bass is full-bodied without being overblown, while mids and highs are smooth, expressive and quite clear sounding—almost as open sounding as those of the top-tier \$500 phones we sampled. Importantly, the ATH-A700 is exceptionally easy to drive, meaning it doesn’t demand a particularly powerful headphone amplifier.

One further point: the comfortable sound of the ATH-A700 combines with unusually good physical comfort and fit in a synergistic way, making you want to listen to these ‘phones for hours at a stretch.

MUSICAL EXAMPLE

Producer Günther Pauler has made some spectacular sounding records for the German Stockfisch label, and one of my favorites is Sara K’s jazz-inflected folk album *Hell or High Water* [Stockfisch, SACD]. The album opens

specs/pricing

Design: Circumaural, closed-back, dynamic headphones

Frequency response: 5Hz–35kHz

Sensitivity: 102dB@1mV

Impedance: 64 ohms

Weight: 10.2 oz.

Price: \$299

Audio-Technica U.S., Inc.

(330) 686-2600

audiotechnica.com

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with the track “Stars,” which highlights Sara K’s airy-sounding yet also full-bodied voice backed by closely mic’d acoustic guitars, delicate South American flutes, chimes, percussion, and bedrock-solid fretless electric bass. The ATH-A700s hit this track out of the proverbial ballpark for two reasons. First, they are clear enough to capture the articulate, breathy quality in Sara K’s voice, yet they also offer sufficient warmth to reveal the deeper, richer body of the voice down below the breathy overtones (something not many headphones can do so well). Second, the Audio-Technica offers an across-the-board quality of richness that draws out the intense tonal colors and textures of the backing instruments—especially the growling bass, which sounds potent and positively subterranean at times.

Like all closed-back headphones, the ATH-A700s can sometimes pressurize your ears (especially on loud, low bass passages), and they will occasionally remind you that they enclose your ears in what is an essentially sealed chamber. But unlike some closed-back designs I’ve tried, the Audio-Technica never gave that oppressive, trapped-inside-a-diving-helmet sensation. Instead, it rests lightly around your ears while gently but firmly blocking out most room noises.

COMFORT FACTOR

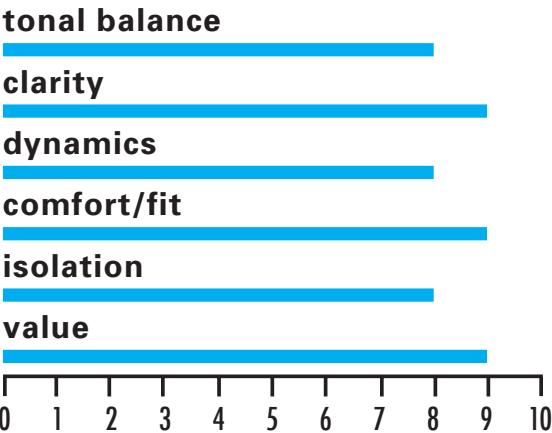
Audio-Technica’s 3D Wing Support Housing makes the light ATH-A700s one of the most comfortable headphones I’ve ever worn. The “Wings” are a set of two padded, articulated, flaps that can tilt in two directions to conform

to the contours of your head, making the headphone seem to “float” in an optimally comfortable position. One small caveat: Audio-Technica’s earpads are covered in faux leather material that squeaks a bit as you move and that does not wick away perspiration the way fabric earpad covers do.

BOTTOM LINE

The oh-so-comfortable ATH-A700s are eminently likable headphones whose just slightly warmer-than-neutral tonal balance sounds fine on well-recorded material while making the ‘phones at least somewhat forgiving of less-than-perfect records. The Audio-Technica offers surprisingly good clarity, too, while serving up bass that is robust and punchy. Though not the very last word in transparency, the ATH-A700 comes surprisingly close to the better \$500 ‘phones and for hundreds less. Note: the easy-to-drive ATH-A700 can even be driven by an iPod, though only to moderate levels. **PB**

RATINGS



LASTWORD



- Smooth, nearly neutral tonal balance provides a touch of natural warmth.
- Surprisingly good clarity and robust, punchy bass.
- Very comfortable and extremely easy to drive.
- Good value.



- Not the last word in terms of absolute transparency, though not too far off the standards of the best open-back designs.
- ATH-A700s sometimes create the sensation of “pressurizing” your ears—especially on loud, low bass notes.

BEYERDYNAMIC DT-880 PRO

\$299



BeyerDynamic has been building headphones and microphones since the company was founded in Berlin in 1924, and today the semi-open-back DT 880 PRO headphone is the second-from-the-top model in the firm's lineup. In a sense, the DT 880 PRO combines design elements of two sister models, the closed-back DT 770 PROs and the top-of-the-line, open-back DT 990 PROs. For this reason, many knowledgeable enthusiasts consider the DT 880 PRO a "best of two worlds" design ideal for listening at home. As BeyerDynamic puts it, the DT 880 PRO combines the "strengths of open, transparent headphones with those of more powerful, closed headphones."

FEATURES

- Semi-open-back design featuring what BeyerDynamic terms an "innovative bass reflex system."
- Spring steel headband.
- 3-meter coiled connector cable.
- Gold-plated connector jacks.
- Soft, velour-covered earpads.

ACCESSORIES

- Canvas-covered, heavily padded carry case.
- Gold-plated mini-jack-to-1/4-inch adapter plug.

SONIC CHARACTER

My first and most lasting impression of the DT 880 PROs is that they offer wonderfully smooth, neutral tonal balance, meaning that they're very "honest" 'phones that show you how recordings really sound, without adding

colorful embellishments of their own. This is the sort of 'phone where it's easy to get lost in the pure, clear sound of individual instrumental and human voices. The BeyerDynamics also offer quite good levels of clarity and resolution, although they do fall a couple of clicks short of the best models in this survey in terms of absolute openness and transparency. One caveat I should mention, though, is that the power hungry DT 880 PROs required much higher amplifier volume settings than other 'phones before they would truly "sing."

MUSICAL EXAMPLES

As I listened to the DT 880 PROs, I found myself enchanted by their tonal neutrality, accuracy, and versatility; they bring a balanced, even-handed presentation that complements musical material of all kinds. For example, they have enough definition,

specs/pricing

Design: Circumaural, semi-open, dynamic headphones

Frequency response: 5H –35kHz

Sensitivity: 96dB@1mV

Impedance: 250 ohms

Weight: 10.4 oz.

Price: \$380

BeyerDynamic, Inc.
(631) 293-3200
beyerdynamic.com

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dynamic moxie, and punch to handle the crunchy opening electric bass and guitar lines and deliberately raucous vocals of the title track of Nick Cave’s *Dig, Lazarus, Dig!!!* [Anti Records]. Yet they can turn on a dime to capture the suave sonorities of the London Symphony Orchestra as it creates a foundation above which violinist Hilary Hahn crafts sweet, soaring solo lines in her performance of Vaughan Williams’ *The Lark Ascending* [LSO/Colin Davis, Deutsche Grammophon]. No matter what kind of material I chose to play, the DT 880 PROs rarely put a foot wrong.

One small shortcoming I noted, however, was that the DT 880 PROs could not quite capture extremely low-level details or the sense of high-frequency “air” surrounding musicians as well as the best phones in our group. But even so, these ‘phones offer a good measure of clarity and great overall balance.

COMFORT FACTOR

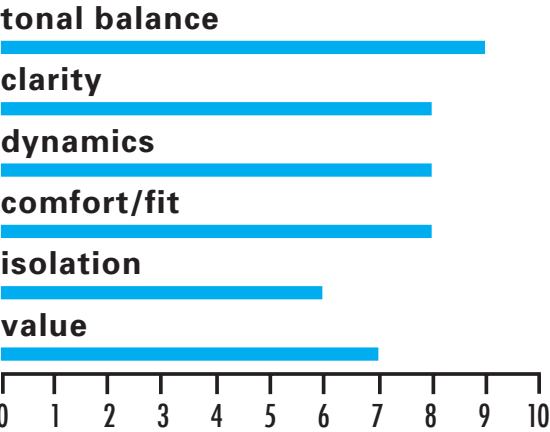
The DT 880 PROs offered better than average comfort. Hint: take time to adjust the DT 880 PRO’s sliding earpiece carriers to achieve a comfortable, relaxed fit. When you get the earpiece positioned right, you should feel very little pressure on the sides of your head.

BOTTOM LINE

The DT 880 PRO is a very well balanced performer that offers neutral tonal balance, an enchantingly “pure” sound, and a measure of clarity that falls only a few clicks short of the performance of the best \$500 models. But plan on buying a gutsy headphone amp if you want to hear these ‘phones sound their best. **PB**



RATINGS



LASTWORD



- Smooth, accurate, neutral tonal balance.
- Imparts a pleasing quality of sonic “purity.”
- Very good (though not quite best-in-class) clarity.



- Not the last word in ultimate openness, though using a stout headphone amplifier improves perceived transparency.
- Notably power hungry; wimpy headphone amps need not apply.

DENON AH-D1001

\$150



The AH-D1001s are the lightest, smallest headphones in this survey and for this reason are among the most comfortable. They are arguably the only 'phones in this group light, compact, and sensitive enough to be worn comfortably outdoors and on the go. As it turns out, the Denons are also—by a mile—the least expensive 'phones in this test group. Truth to tell, we originally requested Denon's more expensive \$350 AH-D2000, but that model was unavailable for review in our timeframe, so that the PR folks suggested we try the much less costly AH-D1001s instead. I worried, at first, that the little Denons might not be able to "run with the big dogs," but they soon put my concerns to rest, proving themselves to be real overachievers—and a very good deal.

FEATURES

- Light, thin, responsive 40mm micro-fiber driver diaphragms.
- Earpiece design features an "Acoustic Optimizer" said to adjust "the sound pressure in front of and behind the diaphragm."
- Driver "motors" feature neodymium magnets.
- Connecting cables use oxygen-free copper conductors.

ACCESSORIES

- Soft fabric carrying bag.
- 1.7-meter extension cable with oxygen free conductors.
- Mini-jack-to-1/4-inch adapter with gold-plated jacks.

SONIC CHARACTER

While with AH-D1001s may not sound quite

as "big," revealing, or transparent as the top models in this group, they come close enough that they can stay right in the hunt and are so well-balanced you would never think of them as having "shortcomings" at all unless you compared them side-by-side with the best \$500 models. The Denons deliver a smooth, suave, sophisticated midrange sound supported by warm, nicely weighted bass. Highs are reasonably clear and extended, but trade off the "Nth" degree of definition and resolution in order to achieve a pleasing quality of natural "sweetness."

MUSICAL EXAMPLE

The Denons sounded downright seductive on Marilyn Mazur and Jan Garbarek's aptly named "Joy Chant" from *Elixir* [ECM]. The AH-D1001's

specs/pricing

Design: Circumaural, closed-back, dynamic headphones (note: Denon literature describes these as "on-ear" headphones, but in fact they're a circumaural design).

Frequency response: 8Hz–37kHz

Sensitivity: 103dB@1mV

Impedance: 32 ohms

Weight: 6.3 oz.

Price: \$150

Denon Electronics (USA), LLC
(201) 762-6500
usa.denon.com

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refined midrange did a great job of revealing the bouncing, exuberant sound of the steel drum-like percussion instrument highlighted on the track, while also giving Garbarek’s light, dancing sax lines plenty of room to play. While high percussion may not have quite shown as much treble detail and “air” as on the premium price ’phones, the presentation was still very satisfying. Beyond trying to reproduce the sound of instruments in a strict, accuracy-oriented sense, the Denons strive (successfully) to capture their overall feel or “vibe.”

But the Denon’s can really rock out, too, as I discovered when I put on “Reckoner” from Radiohead’s *In Rainbows* [ATO Records] records. The track opens with a potent, expressive drum kit pattern that the AH-D1001s render

with energy and snap. More importantly, though, they capture the song’s giant, almost otherworldly soundscape, which give the sense that the song is being performed in a garage about the size of an Olympic gymnasium.

COMFORT FACTOR

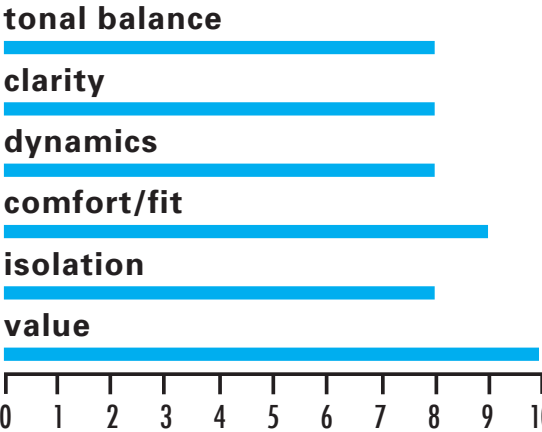
The light, compact AH-D1001s are among the most comfortable phones in our survey. One small caveat is that their earpads are covered in a faux leather material that does not wick away perspiration the way fabric earpad covers do.

BOTTOM LINE

Denon’s AH-D1001 is a delightful headphone that combines sonic prowess with great versatility, comfort, and value. Though not a true top-tier performer in any one area, the Denons get close enough in all areas to make

things interesting and at a more than fair price. One final point: the Denons are so easy to drive that, in a pinch, you could power them directly from an iPod (though only at moderate volume levels). PB

RATINGS



LASTWORD



- A \$150 headphone that in many ways “runs with the big dogs.”
- Suave midrange, nicely weighted bass, sweet highs.
- Very light and comfortable.
- In a pinch, an iPod can drive them (to moderate levels, at any rate).
- Great value.



- Not as transparent-sounding as more costly open-back models, but still in the hunt.

GRADO RS 2

\$495



The RS 2 is the number three model in Grado's headphone lineup, but among headphone aficionados it enjoys a reputation for capturing much of the essential goodness of the very expensive, top-tier Grado models (the RS 1 and GS 1000), yet at a more accessible price. The RS 2 is an open-back, on-ear, dynamic (that is, voice-coil driven) headphone. Grado's higher-priced models are famous for their engaging, wide-open midrange sound, smooth highs, and taut bass, and the RS 2, which Grado describes as a "miniature RS 1," followed right in their sonic footsteps. Though the RS 2 is one of the lighter headphones in this survey, it certainly proved capable of heavyweight sound.

FEATURES

- Open-air design with tube-shaped earpieces—or as Grado would call them, "air chambers"—hand crafted from solid mahogany.
- Drivers feature low-mass polymer diaphragms, neodymium magnets, and UHPLC (ultra high-purity, long crystal, oxygen-free copper) voice-coil wires.
- Left and right drivers matched to within .05 dB (wow!).
- UHPLC connecting-cord wires.
- Foam earpads.

ACCESSORIES

In what may be the ultimate statement of purist simplicity, the Grado RS 2s come with no accessories at all—not even a mini-jack adapter.

SONIC CHARACTER

If I were grading the RS 2, I'd give it a "V" for vividness. When I listened to music through these 'phones, I sometimes had the uncanny sense that my brain had been magically hard-wired straight into the mixing console. The glory of this headphone is its pure, ultra-lucid midrange sound, which sweetly melts upward into silky smooth, finely textured highs. Bass is taut, dynamically alive, and offers a good measure of natural warmth, but is somewhat reticent relative to the mids and highs. This is a highly detailed headphone, though never in a showy, "hey-look-at-me" sense; instead, small textural and transient details just *happen*—without undo effort, drama, or sonic histrionics.

MUSICAL EXAMPLES

The RS 2 is one of those headphones that can reveal in an instant the difference between

specs/pricing

Design: Over-the-ear, open-air, dynamic headphones

Frequency response: 14Hz–28kHz

Sensitivity: 98dB@1mV

Impedance: 32ohms

Weight: 9 oz.

Price: \$495

Grado Laboratories, Inc.
(718) 435-5340
gradolabs.com



recordings that are truly well made versus those that merely pretend to be. One track that falls squarely in the former category is “Split Window” from bassist Viktor Krauss’s *Far From Enough* [Nonesuch], which opens with a delicious and evocative acoustic bass solo but then moves on to include soaring and highly atmospheric accompaniment from Jerry Douglas (on lap steel guitar) and Bill Frisell (on electric and acoustic guitar). Tying all the elements together is some exquisite percussion work from Steve Jordan, featuring delicate press rolls on a snare drum punctuated with occasional soft kick drum accent notes. The RS 2s give you an up-close, zoomed-in view of the upper register of the bass and let you savor the timbres and reverb tails of the guitars and percussion instruments. What really sets the RS 2 apart, though, is a quality of breathtaking openness and intimacy, through which the ‘phones pull you deep into the inner details of records, making music—any kind of music—much more enjoyable.

However, on the same track, I found the RS 2s somewhat underplayed the lower registers of Krauss’s bass as well as the deep, low frequency “thwomp” of Jordan’s periodic kick drum notes. My point is that while the RS 2s achieve a tight and lively bass

sound, they typically do not deliver the fullest measures of low-frequency weight and power. This slight degree of bass-shyness is the RS 2’s only noteworthy sonic shortcoming, though it is a minor one.

COMFORT FACTOR

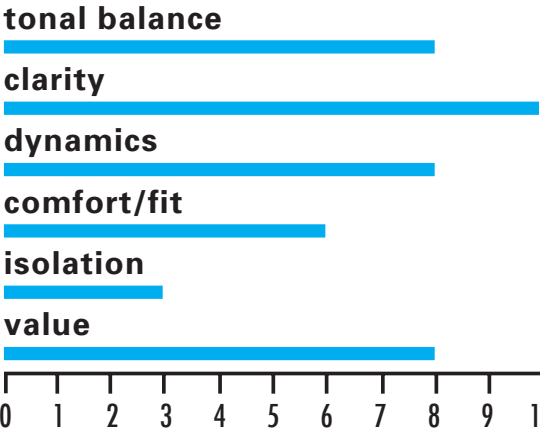
As the only headphone in this survey whose earpads rest directly on the ear, rather than fitting around the ear, the RS 2 fell about mid-pack in our test group in terms of comfort. But though the Grado’s earpads do feel a bit stiff, that factor is offset by the fact that the RS 2s are quite light and don’t put much pressure on your ears.

BOTTOM LINE

The RS 2’s slightly bass-shy/midrange-forward tonal balance won’t be to every listener’s taste, but once you put these babies on and let them work their sonic magic, you may find—as I did—that you’re willing to overlook minor tonal imbalances. You’ll be too busy murmuring the

word “wow,” and dragging out favorite discs to see what new sonic discoveries you can make. How much resolution do these things offer? About as much as a \$16,000+ pair of speakers I recently had in my home for review. That’s amazing. PB

RATINGS



LASTWORD



- Remarkably vivid, vibrant and engaging midrange.
- Sweet, silky-smooth highs and taut, lively bass.
- Gobs of resolution and inner detail.
- Truly breathtaking openness



- Slightly bass-shy/midrange-forward tonal balance—could use more low-end weight and punch.
- Slightly stiff feel of over-the-ear earpads takes some getting used to.

SENNHEISER

HD 650

\$500



The HD 650 has been Sennheiser's flagship audiophile headphone for several years now, but it is only recently that the firm decided to buck contemporary pricing trends to reduce the product's list price from around \$600 to \$500. Sennheiser has been building very high-performance open-back headphones for years, so in a sense the HD 650 is an evolutionary design that leverages insights and know-how gleaned from the classic HD 580 and the critically acclaimed HD 600. Even so, Sennheiser says the HD 650 breaks new ground by offering a sound that "captivates your senses where you used to be a mere observer" and that "allows total immersion in an ocean of music," and I would agree.

FEATURES

- Drivers matched to within ± 1 dB.
- Driver magnet structures optimized for low distortion.
- Acoustic metal mesh damping elements help control the entire surface of the driver diaphragm.
- Low mass aluminum voice coils promote faster transient response
- 'phones come with a detachable, Kevlar-reinforced connecting cord with oxygen-free copper connectors.

ACCESSORIES

- Tasteful, flip-open presentation case.
- ¼"-inch-to-mini-jack adapter with gold-plated jacks

SONIC CHARACTER

When you first put on the HD 650s you might feel a little like Indiana Jones discovering lost treasure because the Sennheisers manage to dig up delicate, extremely low-level textural and transient details that most other 'phones simply miss. Tonal balance is almost perfectly neutral and dynamics are highly expressive and—where appropriate—explosive. If there's any downside to this headphone, it might be a tendency for upper mids and especially highs to sound analytical at times, meaning the HD 650s occasionally expose rough edges in records that other 'phones would probably gloss over.

MUSICAL EXAMPLES

As you might expect, the HD 650 prove particularly rewarding when listening to well-recorded material that's rich in textural detail.

specs/pricing

Design: Circumaural, open-air, dynamic headphones

Frequency response: 10Hz–39.5kHz

Sensitivity: 103dB@1mV

Impedance: 300 ohms

Weight: 9.2 oz.

Price: \$500

Sennheiser Electronics Corporation
(860) 434-9190
sennheiserusa.com

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A perfect example would be Holly Cole’s performance of the Tom Waits song “Take Me Home” from *Temptation* [Metro Blue]. The track opens with Cole softly whispering “here we go” to her sidemen before the music begins—a detail the HD 650s rendered with exceptional clarity, then expands, and then begins to unfold as bassist David Piltch and pianist Aaron Davis join in. The acoustic bass is recorded at high levels that can be tough to handle, but the HD 650s kept the low end perfectly but powerfully under control. What really floored me, though, was the way the Sennheisers nailed the subtlest of inflections in Cole’s voice, making the whole track come alive in the process. The Sennheisers consistently provided an up-close-and-personal view of the music. Sometimes, though, this means getting more detail than you bargained for. On “You Were Always There” from Lyle Lovett’s *My Baby Don’t Tolerate* [Lost Highway], for example, the HD 650s reveal that both Lovett’s voice and Russ Kunkel’s cymbals are so closely mic’d that their sound can momentarily become hard-edged and aggressive—problems that other ’phones won’t always expose (probably because they

can’t). My point is that the HD 650s are sonic truth-tellers, at times almost to a fault.

COMFORT FACTOR

At first I found the HD 650s squeezed the sides of my head much more firmly than other ’phones did, but after experimenting with the Sennheiser’s sliding earpiece arms, I eventually found a position that was more relaxed, yet not overly loose. Hint: if the HD 650s grip your head too firmly, try lowering the earpieces relative to the headband.

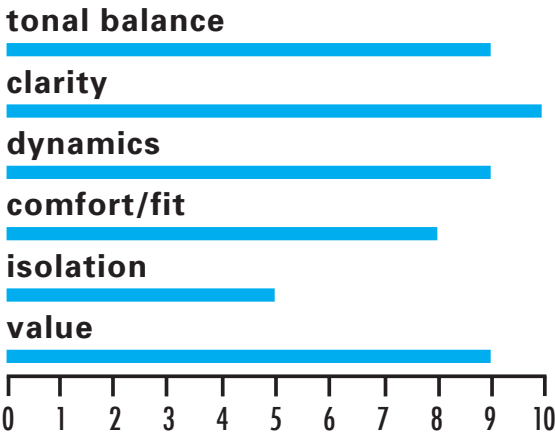
BOTTOM LINE

The HD 650 must be considered one of the benchmark products—if not the outright “gold standard”—in its price class, because it does all things well while exhibiting few if any weaknesses. While there are a handful of ’phones that can perhaps outperform the Sennheisers in one or two areas, few if any offer a more balanced and refined set of sonic virtues overall. Indeed, the HD 650’s

only “shortcoming”—if you can call it that—is a tendency to sound almost hyper-revealing at times, owing to its accurate but slightly analytical-sounding highs. But it’s better to have too much clarity than not enough, right?

PB

RATINGS



LASTWORD



- Highly transparent sound, from top to bottom.
- Tons of definition, with excellent resolution of low-level details.
- A great do-all headphone with no significant weaknesses.
- We got your “gold standard” right here ...
- Expensive, but worth it.



- Finicky listeners might find highs sound more “analytical” than “sweet”
- HD 650s grip your head more firmly than most other ’phones do.

SHURE SRH840

\$200



Many *Playback* readers associate the name Shure with high performance microphones and in-ear headphones, but the Niles, IL-based company has recently entered the market for high-performance over-the-ear headphones with a lineup consisting of three models. *Playback* was fortunate enough to obtain a sample of the flagship model of the group: the SRH840, which sells for \$200.

The basic specifications for the SRH840 seem straightforward enough. It is a mid-weight (318 gram), closed-back, circumaural (over-the-ear) headphone with 40mm dynamic drivers that feature neodymium magnets. Shure says of these drivers that they are designed to deliver “reference-quality frequency response” and are “optimized for studio recording and critical listening.” Earcups are carried on collapsible “arms” that allow the headphones to fold up to fit neatly within their included drawstring carry bag.

Although many consumers would consider \$200 headphones “expensive,” the fact is that among very high-performance models the price of SRH840s falls near the lower end of the scale. Knowing this, we were curious to see how the SRH840 would fare in direct comparison not only with like-priced competitors but also when evaluated against the standards set by headphones in the \$400+ range (or even beyond). The short answer, we soon discovered, is that Shure’s new top model not only holds its own versus higher priced competitors but also surpasses them in many respects. In short, Shure’s SRH840s offer terrific value for money and are high-end ear-openers, extraordinaire.

SONIC CHARACTER

One of the most striking qualities of the Shure SRH840 is that it sounds more sonically refined, revealing, and involving than its

overview

Consider this headphone if:

you crave the sound of \$400+ headphones, but have only about half that amount to spend. For \$200, these Shures sound fully competitive with ‘phones in the \$400+ class—better than some, not quite as good as others, but always in the hunt. The SRH840 is sensitive, offers a rich and vivid yet well-balanced sound (with perhaps a touch—but only a light and tasteful touch—of mid-bass emphasis), explosive dynamics, and an uncanny ability to sound at once highly detailed, yet smooth.

Look elsewhere if:

you want to reach for the absolute heights of sonic openness, transparency, and neutrality. While the SRH840 comes surprisingly close to true top-tier performance, the fact is that, if you are willing to push the envelope (and your wallet) far enough, there are even higher levels of headphone performance to be had at the top end of the scale. But at the \$200 level, the SRH840 is a *steal*, pure and simple. It’s all the headphone many listeners will ever need or want.

In practice, this means you hear the edges of transient sounds more clearly through the Shures while also enjoying a clearer presentation of essential textures and timbres of instrumental and human voices. True, the Shures will expose overly “hot” or harsh-sounding recordings for what they are, but on the whole these headphones do a remarkable job of revealing details while preserving an underlying quality of smoothness. Some pundits say there can be “no gain without pain,” but the SRH840s prove them wrong by showing it is possible to enjoy low level sonic details without subjecting yourself to painful edginess, etching, or glare.

excellent bass pitch definition, and sheer low-end power and weight (when the music calls for it). I've heard many headphones that give you one or two of these bass attributes, but rarely have heard ones that combine all three as effectively as the Shures do. The only caveat I might mention is that the SRH840s exhibit a touch, but only a very *light* touch, of mid-bass emphasis relative to strict neutrality—a characteristic that, in my view, is musically grounded and that can, on many recordings, enable headphones to sound truer to the overall *feel* of live music or of studio performances.

But when it comes to revealing dynamic contrasts, the Shure's enjoy several advantages: they're very sensitive (102dB/mW), extremely easy to drive, and come with cables equipped with pure, oxygen-free copper conductors (just like those used in more costly headphones). Perhaps as a result of all three of these advantages, the Shures seem, in a sense, to expand the apparent dynamic range of many recordings, making both large and small-scale dynamic contrasts stand out in sharp relief.

To hear the terrific clarity of the SRH840s in action, I put on “Just Her Weekend Fling”—the first track from Ludwig Berghe’s gorgeous (and pristinely recorded) jazz album *Weekend* [Moserobie Jazz]. The track features Berghe on piano and sidemen Daniel Fredriksson on drums and Mattias Welin on bass. The song unfolds slowly, giving each of the highlighted instruments plenty of room to breathe, allowing the listener time to drink in and savor each instrument’s voice. What floored me was the way the SRH840 effortlessly revealed even the smallest intricacies and details of timbre, giving an incredibly intimate view of the performance. I could hear, for example, the sound of Fredriksson’s brushes gently rustling over the matte-textured head of his snare drum, creating an ethereal percussion wash against which the rest of the song could unfold. Similarly, I could take in the crisp, sure-handed percussive beauty of Berghe’s note choices and hear—to borrow a phrase coined by my colleague Jonathan Valin at *The Absolute Sound*—the “action” of the piano at work (that is, the subtle, almost subliminal sound of keys actuating hammers, hammers striking strings, strings beginning to vibrate, and vibrations setting in motion rich resonances within the frame and case of the piano, and so forth). The effect was not unlike hearing a piano from very close range—perhaps from only a few feet away. Finally, the Shures showed the masterful restraint of Welin’s bass playing, revealing the way he caressed and held individual notes, rather than succumbing to the temptation to overcomplicate things. My point is that

A horizontal number line with tick marks at every integer from 0 to 10. The numbers are labeled below the line.

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the Shures give you an accurate insider's view—indeed, almost a performer's view—of high quality music recordings, which is exactly what you would want a monitoring headphone to do.

To evaluate the Shure's bass performance, I played the very demanding third ("Landscape: Lento") movement of Vaughan Williams' *Sinfonia antartica* [Bakels, Bournemouth; Naxos], which features tympani, concert bass drums, and a pipe organ. I have heard this recording many times through superb full-range loudspeakers and through systems equipped with world-class subwoofer, but I don't think I've ever heard it better rendered than through the SRH840s. Here's why. The movement presents low frequency instruments played both delicately and vigorously and at high and low volume levels, in the process exposing listeners to a very wide range of bass timbres and pitches. Speakers often have a hard time keeping up with the demands of this track and room interactions can be a problem, too. Through the Shures, however, I had the sense of hearing the bass content of the track as it was meant to sound—low key in some passages and almost overwhelmingly powerful in others, yet always presented in perfect control with clearly delineated pitches, even on the lowest organ pedal notes. This is how bass was meant to sound.

Finally, to enjoy the dynamic clout of the Shure, I tried an old favorite: the track "You And Your Friend" from Dire Straits' *On Every Street* [Warner Bros.]. This track, more than many, shows how dynamically compressed most hi-fi systems sound and, in contrast, how

dynamically expressive the SRH840's can be. Through most systems Mark Knopfler's guitar sounds smooth and lush on this track, but also a bit subdued relative to the sound of a real electric guitar. Through the Shure's, however, one has the eerie but very exciting sensation of

being "hard-wired" directly into the pickup circuitry on Knopfler's guitar. Some notes are indeed smooth and creamy-sounding, but on others you can hear Knopfler dig in just a bit, making the leading edges of notes explode with bursts of energy. Similarly, you can hear

variations in the way Knopfler bends notes, gently pulling some to higher pitches while sharply tugging others upward in a way that imparts a vigorous howl of expression. The point, I think, is that the Shures offer you extra measures of expressiveness that make dynamic contrasts sound vivid and alive—leaving lesser hi-fi systems and headphones sounding somewhat "faded" by comparison.

COMFORT FACTOR/ACCESSORIES

The SRH840s feature generously-proportioned, leather-covered earcup pads that help distribute the headphone's moderate clamping forces for long-term wearer comfort. Another plus is a wide, padded headband that helps distribute the weight of the Shures across a broader area at the top of your head.

The Shures come with a high-quality 9.8-foot extension cord with a bayonet-type locking lug that cinches the cable firmly to the body of the left earpiece. Other accessories include a gold-plated, threaded mini-jack to phone jack adapter, a spare set of earcup pads, and a leatherette drawstring-type carrying bag.

BOTTOM LINE

Shure's SRH840 is a wonderful general purpose headphone that is good, not just "for the money" (though it is certainly that), but also in a broader sense. These headphones set a benchmark in terms of value for money. To do better, you'll have to spend much, much more.

PB



ULTRASONE PRO 2500

\$389



Ultrasone is a German firm that makes headphones for DJ, hi-fi, and professional applications, though it is perhaps best known in the United States for its pro-series models. I debated whether to sample one of the hi-fi- or pro-series models for this survey, but ultimately settled on the firm's flagship professional phones: the PRO 2500s. I was influenced, admittedly, by the follow teaser descriptive found on the Ultrasone Web site:

"You prefer open-back headphones? ... the PRO 2500 model provides due to its open-back design the most airy sound within the complete PRO line. Accuracy and the finest sound reproduction is guaranteed. ..."

FEATURES

- Open-air design with MU-metal-shielded earpieces said to reduce electromagnetic radiation by up to 98 percent relative to conventional headphones.
- Titanium-plated drive units.
- S-Logic Natural Surround technology, which is said to help create the illusion that has sound moved "out of your head and into the room around you," and that Ultrasone claims to allow "a reduction of sound pressure levels by up to 40 percent (3–4dB) for the same loudness sensation," thus promoting safer hearing.
- Speed-switch, velour-covered earpads.
- Extensive set of accessories, as noted below.

ACCESSORIES

- Heavily padded, canvas-covered PRO-series carrying case.

- 3-meter straight connecting cord
- ~3-meter coiled connecting cord
- ¼-inch-to-mini-jack adapter
- Spare pair of speed-switch earpads.
- S-Logic demo CD.

SONIC CHARACTER

The Ultrasone PRO 2500 produced what I think many listeners would consider a "big" sound, and exhibited considerable sonic potential—albeit potential I felt was not fully realized. The PRO 2500 offers excellent bass—some of the deepest and most powerful bass I've heard from any headphone—and lively upper midrange response that is generally clear, but that sometimes sounds excessively "splashy" on hard transients. The weakness of the design, however, is that its overall tonal balance is considerably more uneven than that

specs/pricing

Design: Circumaural, semi-open, dynamic headphones with MU-metal shielding for ultra-low emissions.

Frequency response: 8H –35kHz

Sensitivity: 94dB@1mV

Impedance: 40 ohms

Weight: 10.4 oz.

Price: \$389

Ultrasone Inc.
(951) 678-9091
ultrasone.com

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of many other ‘phones in this price range. As a result, bass and upper mids sound overly prominent, while lower mids and extreme highs tend to sound somewhat recessed.

MUSICAL EXAMPLES

“Take Me To The River” from Eva Cassidy’s *Live At Blues Alley* [Blix Street Records] shows both the strengths and weaknesses of the PRO 2500. The song opens with a spectacular, plunging electric bass glissando, which the Ultrasones reproduced with real gusto (when you hear that bass fire up, you’ll want to jump out of your seat and boogie). And when Cassidy belts out the familiar opening line of the song—“I don’t why/I love you like I do”—the upper register of her voice falls within the PRO 2500’s upper midrange emphasis region, so that her vocals at first sound powerful and dramatic.

But as the song unfolds and Cassidy starts to draw upon the lower register of her voice, problems cropped up. The PRO 2500s made the lower register of Cassidy’s voice sound somewhat subdued and withdrawn, which is really not how the record should sound. At the same time, the Ultrasone’s made the ride cymbal pings that pace the song’s chorus seem overly brash and splashy, while paradoxically rolling off the cymbals’ delicate, silvery, high-frequency overtones—again, not the way this record should sound.

My conclusion is that the Ultrasones’s very real sonic strengths are undermined by the unevenness of their tonal balance, which makes listening to the ‘phones a bit of an unpredictable sonic “roller coaster” ride.

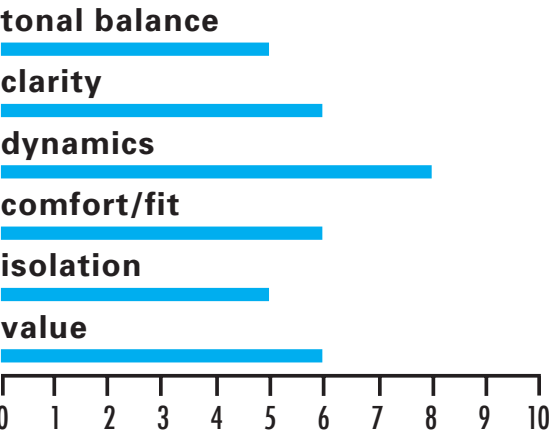
COMFORT FACTOR

The PRO 2500s offer very comfy earpads, but nevertheless fell about mid-pack in terms of comfort for two reasons. First, the ‘phones feel heavier than their specifications would suggest and carry a good bit of their weight up high—in the headband. Second, the headband is not padded across its full width, but only in a 3–4-inch wide strip in the middle, which concentrates pressure on the top of your head.

BOTTOM LINE

The bass and, to a degree, the upper mids of the Ultrasone PRO 2500 show great promise, but uneven tonal balance keeps these ‘phones from realizing their full potential. Even so, the PRO 2500s manage to produce a big, bold sound. We applaud Ultrasone’s pioneering efforts to reduce electromagnetic radiation and to minimize the need for excessive volume levels—both steps taken in the interest of consumer safety. PB

RATINGS



LASTWORD



- Excellent bass performance.
- Upper mids are lively and expressive.
- Ultra-low emission design gives users peace of mind.
- Thoughtful accessories add value



- Tonal balance is too colored; bass and upper mids overly prominent, lower mids and highs too recessed.
- Upper mids, though expressive, can sound overly “splashy” at times

DENON AH-D5000

\$699

Tom Martin



Denon is a storied company with a historically interesting technical position stemming from its early partnership with Columbia Records. Denon was both a recording company and a hardware producer from its early days. This kind of business integration arguably makes sense, with Sony as the current exemplar of the approach (accomplished via acquisition). In the U.S. key companies like RCA were not able to sustain excellence across such a wide front, but Denon—at least from the perspective of audio enthusiasts—created some very high quality products over time. This was especially true of phono cartridges and other products related to recording and LP production.

It is hard to say whether the ongoing recording arts culture at Denon is responsible for the AH-D5000, but the idea seems credible since Denon has built something special in these headphones. At the specification level, the 5000s appear to be conventional headphones with a twist or two. They are sealed back, over the ear types, with 50mm drivers. Things depart from convention slightly when we get to the driver material, which is microfiber. And the driver housings are made of mahogany, with reference to its use in musical instruments (a reference that apparently appeals to the Japanese but seems inscrutable to more logic-constrained Westerners who think of instruments and transducers as being fundamentally different).

Despite this minimal story line, the AH-D5000s have developed something of a cult following. I'll try to shed some light on why below.

SONIC CHARACTER

The most obvious, hit-you-over-the-head aspect of the 5000s is their bass. The 5000s have strong bass that goes unusually deep for a headphone. After weeks with the 5000s, I'd say they have a bass bump, judged against live sound. But so far I'd say it is a pretty artfully judged bass bump that doesn't get in the way of the music. Compared with headphones (many) that are somewhat reticent in the bass, the Denon version of bass generates a sense of life and punch that is welcome on a lot of material. Put differently, if you like bass and feel cheated when speakers or headphones are a little rolled off, the Denons could be your cup of tea.

To be clear, while the sound can get a little heavy on the bottom with the AH-D5000's EQ curve, the bass doesn't get thick and inarticulate. Bass boost can be more articulate in headphones because you aren't dealing

overview

Consider this headset if:

you long for headphones with rich, musical bass and yet refuse to give up mid-range and treble transparency. Vivid, engaging tonal colors are the AH-D5000's greatest strength.

Look elsewhere if:

small colorations offend you, or if you cannot tolerate even small traces of high frequency brightness.

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with (as many) unpredictable resonances. You can hear this in the Denons, which have much more bass definition than a speaker would with some low-end boost. These are bass-lovers' headphones.

I'd also hazard to say that without some judicious bass boost a headphone just can't sound as real as great loudspeakers can. Something in a headphone has to substitute for the lack of slam and moving air that you get in real life from live sound or from a good stereo system. I think Denon might have taken things just slightly too far in the bass domain, but that may be preferable to not taking things far enough (a common error in headphone design).

So, the 5000s are special because they have intelligently and musically tuned bass. But that wouldn't be nearly enough, if the midrange weren't equally good. But it is. The midrange on the Denons is relaxed, clear and well-balanced. In particular, Denon doesn't roll off the upper mid-range as some other models in this class do. The result is that the 5000s sound more open and life-like than competing headphones such as the Sennheiser HD-650s.

Overall, the treble is well-balanced with the mid-range and bass. There is, however, a mid-treble edge that occasionally grates, though only slightly. It shows up less as a shift in overall tonal balance, but rather as a tendency to make sibilants and high frequency transients a little "sharp" sounding. This doesn't happen on all transients, which is what makes me believe the issue is in a pretty narrow frequency band. Some modern recordings accentuate this, so the fault isn't entirely with

Denon. Nonetheless, this tendency to make certain treble transients a little too hot is in my view the make-or-break issue that will determine whether these headphones are for you (or not).

As you might expect, very neutral-sounding headphone amplifiers (such as the Luxman and PS Audio units that I had on hand for this review) tend to expose both the Denon's mid-treble strengths and weaknesses. It is possible, however, that different and less neutral amps could optimize the Denon's sound by softening treble transients to some degree.

To keep things in perspective, bear in mind that the AH-D5000 is all about serving up a sound characterized by rich and vivid tonal colors. The minor sonic excesses I've described above may well be the price you pay to enjoy the concomitant richness and vividness—a tradeoff many listeners will, I suspect, happily embrace.

The other issue that I'd raise is that the 5000s have a slight tendency to divide music into Bass/Midrange/Treble segments. Each region sounds good (mostly), but overall this presentation isn't entirely natural. Classical lovers may notice this more than lovers of other musical styles.

MUSICAL EXAMPLES

On Mary Black's song "Trying to Get the Balance Right", from *By the Time It Gets Dark* [Gift Horse], Mary's voice is very clear. The accompanying acoustic guitar is plucked emphatically on the initial beats of the chorus, and the treble edge I mention above results in the guitar sounding a little more metallic

than it should. You can hear a similar, slightly unnatural effect on Alison Krauss and Union Station's song "Maybe" [*Alison Krauss & Union Station – Live*, Rounder/UMGD]. The 5000s handle the voices transparently, but the chorus of that song has a multi-part harmony where the difference in voices yields too much overtone ringing.

By contrast, though, I found that on Paavo Jarvi's version of the Beethoven 3rd Symphony [RCA Red Seal] the Denon's had a very listenable treble presentation with good clarity. The cellos were, however, under-emphasized a bit. In this case one might say the sound was a little cool, though thanks to the strong bottom end, the sound isn't thin.

COMFORT FACTOR/ACCESSORIES

The AH-D5000 ear cups are soft and the clamping force is very low. As a result they are comfortable for long periods (they don't aggravate pressure points), although they are slightly heavy so that the headband occasionally needs to be shifted

BOTTOM LINE

Denon's AH-D5000 is a very musical headphone, but one that is somewhat colored—although in beguiling ways. Careful selection of ancillary source and amplification components will be necessary for best results.

PB

specs/pricing

Accessories: Mini-plug to phone jack adapter

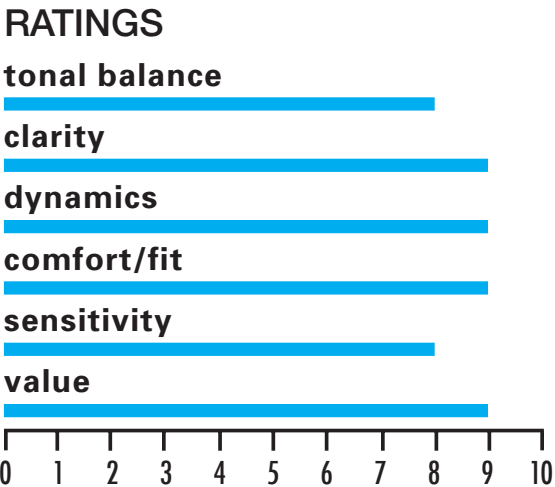
Weight: 370 grams

Sensitivity: 106dB/mW

Impedance: 25 ohms

Price: \$699.95

Denon Electronics (USA), LLC
(201) 762-6500
www.usa.denon.com



GRADO GS1000

\$995



Riddle me this—name a speaker system that comes with its own built-in listening room. Give up? The answer is *any* set of headphones. Whether they are sealed chambers and fully enclose the ear for the ultimate in isolation or open-chamber/on-ear designs, which allow room sound and ambience to mingle with your music, headphones are not as simple as they look. As with a great set of speakers, you'll hear the recorded signal plus the ambient cues of a miniaturized soundspace complete with its own acoustic boundaries, reflection patterns, and time delays. These issues couldn't have been more vividly illustrated than during the time I spent road-testing the Grado GS1000 headphones—first with its own headphone amp, the RA1, and later with the Cayin HA-1A headphone amp.

Although it shares family similarities with its high-performance stablemates, the RS1 and RS2, Grado's flagship GS1000 is an open-air, dynamic headphone whose drivers, driver housings, and ear cushions are unique to the model.

THE ROLLS ROYCE OF HEADPHONES?

It's big and retro—the Rolls Royce Phantom of headphones with colossal wooden ear pieces that contain vast air chambers. The foam ear pads are a completely new cushion-design for Grado and they don't just rest upon your ears as supra-aural (that is, "on top of the ear") pads do. Rather the earcups and pads are circumaural, enclosing the entire ear like a pair of hollowed-out coconut shells. The genuine

leather headband is large and adjustable and distributes weight evenly and comfortably across the top of the head. The transducers are wound with Ultra High Purity Copper (UHPLC)—the same wire material used in the Y connecting cord with 1/4-inch stereo plug. A fifteen-foot cable extension is included, along with a 1/4-inch to 1/8-inch adapter for portable players.

The sonic character of the GS1000 (with RA1 headphone amp) is unmistakably Grado, meaning that, as with its fine series of moving-magnet phono cartridges, there's a prevailing warmth factor, a rich cushion of sound that stretches from the midbass well into the upper mids. The treble is detailed with a slight push forward in the presence range between 2–5kHz. This adds articulation to vocals and a bit more transient pop to Telecaster solos and rim shots, but doesn't turn aggressively etchy. The sound of the cello (*Kol Nidre*, Bruch, Wispelwey [Channel Classics]) in many ways encapsulates the GS1000's signature. It's dark and ripe and the area in the immediate proximity of the instrument seems filled with air, an attribute that underscores the powerful box resonances of the cello. There's a laid-back presentation to the Grado that is neither unpleasing nor overstated.

The GS1000 is big on bass, and it's particularly appealing in lower-level listening. But it also feels like it's been contoured to sound its best at lower, more *civilized* volumes. Definition and dynamics can quickly thicken when the volume is punched up into rock-concert territory. Frankly, true low-bass reproduction never really sounds entirely

specs/pricing

Type: Vented diaphragm, wooden air chamber headphone, with circumaural ear cushion

Transducer: Dynamic

Frequency Response: 8Hz–35kHz

SPL 1mV: 98dB

Impedance: 32 ohms

Driver matched dB: 0.05dB

Price: \$995

Grado Labs
(718) 435-5340
gradolabs.com

natural over the majority of headphones I've used. It's an issue that goes beyond specifications to the seat-of-the-pants reality of bass reproduction in a large hall. The reduction in concert hall realism is partly due to the psychology of listening in our head versus our instinctive familiarity with the direct and reflected information that we encounter everyday. There's the sense in a headphone that the air in the long, long wavelengths of deep bass doesn't entirely miniaturize for the short throw distances between the transducer and eardrum, so what you hear in a headphone is a greater proportion of the overtones of the fundamental rather than the fundamental itself.

MIND EXPANDING SOUNDSTAGES

By far the GS1000's most alluring trait—the

carrot that kept pulling me back in to listen to “just one more” recording—was its mind-expanding soundstage. It's a stage that extends well outside the ear's boundaries. Not just limited to the proscenium of a stage, it takes in the wings, as well. And it has a defined height and depth component that adds to the realism. This expansive soundstage I think is directly related to a lack of enclosure artifacts or resonances. Many headphones confine the sound between what sounds like hard reflective surfaces, like the walls of a small untreated room. This is a problem that dogs an otherwise highly midrange-neutral headphone like the AKG K501. The GS1000, on the other hand, is closer to a large well-damped hall. The music seems to be traveling towards the listener the way we experience it live, as opposed to sounding mainlined into your ear drum. This factor is perhaps the most seductive aspect of the GS1000 and separates it from many of its competitors.

Adding the Cayin HA-1A into the mix was an exercise in unalloyed hedonism. Never at a loss for gain, the HA-1A also offers the pleasure of switching between triode and ultralinear settings, which, when shuttling among musical genres, grows habit-forming. Triode became my preference for orchestral music. The sound it conveyed was smoother, the mids a bit warmer, and the string sections more continuous and layered. For the bass punch and midbass dynamics that underpin most rock recordings, ultralinear was the easy choice. Two recordings remastered to SACD exemplified this none-

too-subtle difference. The opening drum vamp during “Murder By Numbers” (*Synchronicity*, The Police [A&M]) can be incredibly forceful and on a conventional playback system should compress your stomach and box your ears on the downbeat. A great set of headphones—

even one as bass-strong as the Grado—can't body slam like a full-range loudspeaker, but ultralinear mode provided plenty of pop and drive. Triode mode attenuated this impact and energy and reduced the thrust of Stewart Copeland's fiendishly manic playing into



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something akin to a Howdy-Doody drumkit. Another comparison, but at the other end of the tonal spectrum, was the shimmering hi-hat and hard-panned cymbals that play non-stop through Elton John's "Someone Saved My Life Tonight" (*Captain Fantastic and the Brown Dirt Cowboy* [Island]). They are more liquid and

nuanced in triode mode—more finely wrought than the slightly etchy character they have in ultralinear mode.

The Grado RA1 headphone amplifier is a specialist, built with a knowledge of Grado designs that other head-amp companies aren't privy to. This gave it an advantage with the

GS1000. In contrast with the Cayin, the Grado RA1 controlled the bottom end of the GS1000 better than the Cayin, without reducing the characteristic richness of the GS1000. If I had to guess, it sounded as if the RA1 was in effect EQing the GS1000 and making it a more neutral component. The Cayin, on the other hand, increased micro-dynamic detail and dimensionality and opened up the soundstage considerably. In a nutshell, the Grado amp made the GS1000 a more tonally accurate unit, even if, taken on the whole, the Cayin brought out more emotional excitement. The Grado is a bargain. It's also the perfect choice for high-end road warriors who demand portability without compromise. However, for flexibility with an assortment of headsets, the adjustable, stay-at-home, and oh-so-sexy Cayin is pretty hard to beat.

There is one other ancillary issue that is often not given enough attention. Since headphones are essentially worn like an article of clothing, it's important to take the time to audition them

at length for comfort. Like a crummy pair of shoes, ill-fitting headphones, no matter how good they sound, are ultimately going to sit in a drawer collecting dust if you don't like wearing them. The GS1000s are certainly comfortable and distribute their weight lightly over the ears, but the full-coverage foam ear pads can get warm during extended listening. Anticipating this, Grado offers other replaceable and less restrictive ear-pad designs.

BOTTOM LINE

The Grado GS1000 is a luxury headphone built for comfort and long listening sessions. It may not be a mastering engineer's choice for the nitpicking precision of studio work, but for sinking into a favorite chair and enjoying a visit with a beloved symphony, headphones don't sound or feel much better than this. Caveat emptor: The GS1000s are utterly habit-forming, so audition at your own risk. PB



LASTWORD



- Mind-blowing soundstages—especially so for a headphone.
- Articulate, but never aggressive.
- A welcome touch of natural warmth with powerful bass.
- Comfortable for long sessions.



- A little too dark and ripe-sounding for its own good?
- Dynamics and definition can thicken at high volumes.

SENNHEISER

HD 800

\$1399

Tom Martin



Sennheiser is a bit like its German compatriots BMW and Mercedes-Benz. Sennheiser doesn't produce the largest number of headphones or the most exotic designs, but the headphones it makes consistently start with a strong engineering foundation. When such a company ventures into the top level of headphone pricing (in this case \$1399), it draws attention.

Sennheiser's attack on the "best headphones possible" category is called the HD 800. That bland nomenclature belies the effort Sennheiser has put into the design of the HD 800. This isn't just a slightly better HD 650 (their previous top of the line and a reference for many reviewers). No, the HD 800 is a new concept of how a headphone should work.

With the HD 800, Sennheiser reexamined the way it makes headphones. The first fundamental change was shifting to a much larger driver in each earcup. A larger driver makes it possible to deliver low bass with less distortion. But Sennheiser's design is aimed at reducing distortion across the frequency spectrum, quoted as 14hz – 44khz (-3dB) or 6hz – 51khz (-10dB).

The second major innovation is the orientation of the drivers vis-à-vis your ears. Since your ears detect the sense of space through timing differences as sound waves strike your ear from the front, Sennheiser has angled the HD 800 drivers to enhance the sense of space that the headphones provide. Sennheiser has also paid attention to comfort by using special ear pad materials and by employing new light but very hard plastics. All in all this is an aggressive attempt to deliver

the best.

SONIC CHARACTER

Tonal Balance: I'm sure Sennheiser worked overtime to try to remove discernible colorations from the HD 800s. Overall, the HD 800s offer generally neutral tonal balance. My listening revealed excellent deep bass and just enough mid-bass warmth to not feel noticeably deprived. Similarly, high frequencies are present in broadly proper balance to the midrange. High frequencies are also clear in the sense that they are inherently low in distortion, rather than tweaked to impart a false sense of clarity.

The HD 800s seem to have a dip in the upper midrange, which makes them slightly soft dynamically. Despite that fact, the HD 800s may have a very narrow treble peak resulting in vocals that can occasionally sound

overview

Consider this headphone if:

you like a smooth, well-balanced sound that is clear but not aggressive. These will be a good choice if you have previously owned high-end Sennheiser's and like them but wish for more extension at the frequency extremes.

Look elsewhere if:

you prefer a vivid, ultra-detailed sound that offers the ultimate in transparency, or plenty of mid-bass slam.

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ever so slightly “sharp” rather than completely sweet and pure (which could be a matter of the HD 800s revealing decoding errors, though there might be other factors at work, as well).

The bass of the HD 800s is slightly soft, meaning you won’t hear the air of plucked basses or the punch of kick drums to the degree that you would with live music. I can imagine certain listeners wanting a little more bass to make up for the inevitable lack of the visceral impact you get with live music but can’t get with headphones.

But while the HD 800’s mid-bass balance is a little on the light side, this is in fact a pretty small deviation from neutrality. There is enough warmth (in the mid-bass) for the listener not to feel deprived. Normally a small dip in mid-bass response could signal a roll-off at even lower frequencies, but that isn’t the case with the HD 800s. Their deep bass is quite solid.

The HD 800’s tonal balance is excellent. Overall, I would say that the HD 800s are more natural and less analytical than some top ‘phones, which is a good thing, especially when you consider the very good treble performance these Sennheisers have to offer.

Subtractive Colorations: All transducers have colorations, which can take two forms: additive or subtractive distortions. The HD 800s primarily have subtractive colorations, meaning they de-emphasize certain frequency bands, albeit in a subtle way. For example, though across the entire midrange and treble region the HD 800s are balanced, some might find the HD 800’s reduced upper midrange response to yield a sound very slightly warmer than is

perfectly neutral. Such subtractive effects, I think, are the key to understanding the HD 800’s sound.

Subtractive colorations have the virtue of not calling much attention to themselves and because the HD 800 has small subtractions the result is a very natural sound. In fact, the overall presentation of the HD 800s sounds rather like live music—especially when compared with much of the reproduced sound we hear, which can be plagued with gross additive colorations and distortions that remind us the sound is reproduced and not real. When you remove those additive distortions, as Sennheiser has done, you relax and feel things are more natural.

Vividness: However, the price of these subtractive colorations can be a certain loss of musical vividness, a minor problem that affects the HD 800s to a slight but noticeable degree. By “vividness” I’m referring a combination of sonic qualities that convey a holistic sense that the music is dynamic, clear and full of life.

To state things simply, the HD 800s are not the most realistically vivid headphones I have heard (or at least they didn’t seem to be when driven by the very good headphone amps I used for my initial listening tests—primarily the Luxman P200 and PS Audio GCHA). For example, the HD 800s didn’t give me the sense of being directly coupled to the recording microphones, which some other top-of-the-line ‘phones I’ve heard can do.

I don’t mean to suggest by this that the HD 800s lack transparency; that isn’t the case at all. It’s just that the HD 800s can be a bit less

emotionally involving and engaging than some top-tier models I’ve heard.

I have since tried the HD 800s with a prototype Woo Audio WA 22 amp (a tube rather than solid state amp with variable output impedance). The Woo took the vividness of HD 800s up a worthwhile notch. Through the Woo, the mostly subtractive errors of the HD 800 were still present, but their negative effects were mitigated, making the Sennheiser much more satisfying to listen to.

Spatial Presentation: On the subject of soundstaging, Sennheiser has this to say: “Sound waves channeled to our ears at a realistic angle ensure a sound as natural as the one generated by correctly positioned loudspeaker systems. Thanks to an innovative design, the HD 800 meets this requirement.”

Frankly, I ‘d have to disagree with that statement. When heard through the HD 800s, performers do not appear on a stage *in front of you*—at least not to any greater degree than would be the case with traditional headphones or earbuds. And, of course, the HD 800s have no way of duplicating the crossfeed of left sounds into your right ear (and vice versa) that is part of normal listening through loudspeakers.

On the other hand, viewed in terms of instrumental (air) rather than orchestral (soundstaging) rendition, I do think these headphones convey more of the sense that real instruments are being played in real spaces than other headphones do, and that is an important advantage.

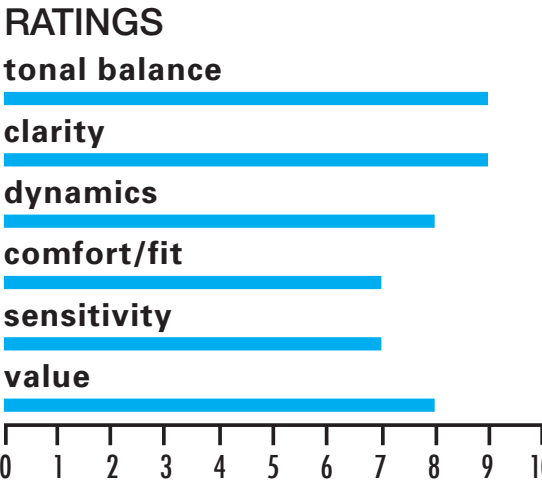
Value: To be honest, it would be fair to say

most headphones are flawed, often in pretty obvious ways. With the HD 800, Sennheiser has gone a long way toward reducing obvious flaws, which makes this a very special pair of headphones.

specs/pricing

Accessories: Mini-plug to phone jack adapter
Satin-lined storage box
Weight: 330 grams
Sensitivity: 102dB
Impedance: 300 ohms
Price: \$1399.95

SENNHEISER USA
(860) 434-9190
[www.sennheiser.com](#)



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Because the flaws in the HD 800 are in fact quite small, my colleague Alan Sircom was enthralled with the HD 800s when he reviewed them in our sister magazine from the UK, *Hi-Fi Plus*. He compared them with \$25,000 loudspeakers to give you a sense of how much he loved them.

I'm not in the camp that thinks a \$1399 headphone needs to be perfect to justify its' price, so I agree with Alan that the HD 800s fully merit their somewhat lofty price tag. I'm not quite as over the top about them as he was, but with the right amplification, I found the HD 800s were so good that I could easily live with them over the long haul.

MUSICAL EXAMPLE

"Cheek to Cheek", the opening track on Eva Cassidy's fantastic *Live at Blues Alley* [Blix Street], tells you a lot about the HD 800s. First off, all the instruments from string bass to cymbals are well represented and in appropriate balance (a lot of headphones fail this test). Second, Eva's voice via amplification has a very slight shrillness to it, which the HD800's faithfully reproduce. That's good in this case, because experience with this disc says that some shrillness is inherent to the recording. Headphones that soften the edges of the singer's voice too much will typically sound foggy and drab on most material. But conversely, 'phones that sharpen Eva's voice too much and are likely to be unlistenable on the many bad recordings we get these days. Happily, the HD800's find that "just right" balance point in the middle.

The other thing "Cheek to Cheek" reveals is

that the HD 800s, with their somewhat diffuse sound, don't quite nail the rhythm of this track. When the band kicks in, you hear everything clearly, yet the drive of the rhythm section is slightly more reserved than would ideally be the case. Nonetheless there is a nice degree of "air" surrounding the instruments.

COMPETITIVE COMPARISON

Some of the stiffest competition for the HD 800 will come from Sennheiser's excellent and considerably less expensive HD 650.

To come straight to the point, I think the HD 800 is a substantial step ahead of the Sennheiser HD 650s. The low frequencies of the HD 800 go deeper and its bass is more articulate overall. The HD 800's high frequencies are likewise lower in distortion and better balanced. Overall, the HD 800s simply seem brighter than the HD 650s. Since I'd say the 650s are on the dark side the greater brightness of the HD 800s isn't a bad thing, though there is room in the world for preferences (especially since so many popular recordings seem to be mixed on the hot side).

What I don't think is arguable is that the 800s sometimes effortlessly reveal instruments that can't really be heard clearly through the 650s. For example, on Annie Lennox' version of "Ladies of the Canyon" there is a cymbal in the background. On the 650s you might think the percussion sound is a rim shot, but the 800s make it clear that it is a cymbal that produces the sound. All of this suggests to me that the 800s have flatter high frequency response than the already very good HD 650s.

Whether these noticeable improvements are

worth the extra cash is something for you to decide. On one level, the HD 800s don't sound *radically* different than the 650s, but they can be worth the step up for those who like the 650s but would love to address a few issues with better extension, transparency and treble balance.

COMFORT FACTOR/ACCESSORIES

No two heads are alike, so your mileage may vary. I like circumaural headphones, and within

this genre I thought the Sennheiser HD 800s were quite comfortable for long periods. The special alcantara material on the pads is very nice. The pressure is a little high, but the pads are so big this is well distributed.

BOTTOM LINE

A truly excellent headphone, the HD 800 will appeal to those who want a smooth and balanced sound with ample but not punishing clarity. **PB**



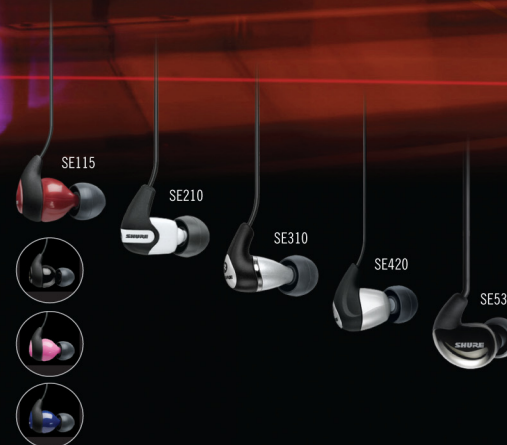


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ULTRASONE EDITION 8 \$1499

Tom Martin



For those of you unfamiliar with Ultrasone, they are a German headphone company (as are Sennheiser and Beyerdynamic, with AKG hailing from nearby Austria).

Founded in 1991, Ultrasone is focused exclusively on headphone design and manufacture (whereas the other Germanic brands also make microphones among other devices) and has many patents in this field.

The Edition 8s are Ultrasone's top audiophile model and are priced like it at \$1499. They are sealed back headphones, which makes them more suitable for noisy environments or offices where you don't want to disturb others.

In addition to careful attention to design detail (e.g., Ethiopian sheepskin earpads), the Edition 8s have a technology called S-Logic Plus. The idea is similar to the concept that Sennheiser has employed on the HD 800: place the drivers so that your outer ear is involved with the result that you get a sense of space that is closer to that of live music. If you've read my Sennheiser HD 800 review, you'll know that I found that the Sennheiser technology does indeed add a sense of space around instruments but that it doesn't simulate the imaging of speakers or live music. I'd say the same thing about Ultrasone's S-Logic, though I think the HD 800s do a bit better job of conveying a sense of airiness. In any event S-Logic is good technology backed by (somewhat) inaccurate marketing claims.

But before you get the impression that I think S-Logic is a minor thing, I need to tell you about one other important design goal behind it. Ultrasone's Dr. Florian Koenig has done detailed experiments that were conducted to

find the headphone architecture (closed, open, centered driver, offset driver, offset geometry) that minimizes perceived frequency response variations between listeners. It seems that, partly due to different ear shapes, different listeners perceive headphone frequency response differently. All other things being equal, a headphone would be better if there were a smaller variance in perceived response across listeners. S-Logic Plus is the latest version of the architecture that Dr. Koenig found minimized perceived response variance.

So, the Edition 8 is an interesting headphone, but can it compete with top models from Sennheiser, or for that matter Denon, Audio Technica and Grado? Let's find out.

SONIC CHARACTER

Disc after disc, the first impressive aspect of the Edition 8's is their ability to render instruments and ensembles without obviously

overview

Consider this headset if:

you want headphones with very even frequency balance and excellent tonality, without making major sacrifices in any other sonic parameters.

Look elsewhere if:

you want the absolute last word in transparency and dynamics (and you might be willing to sacrifice other sonic parameters to get these two qualities).

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emphasized (or de-emphasized) frequencies. This strikes me as one of the most basic design requirements of any transducer, but with headphones as with speakers, it seems that truly neutral tonal balance is very hard to achieve.

Most headphones have some range of treble emphasis, however narrow. The Ultrasones mostly avoid this problem, though I did occasionally feel that the upper treble was slightly stronger than is purely neutral. This is a masterful achievement.

Bass is a potential strong point of headphones (because unlike speakers, headphones face a mostly known acoustic

environment). But you still hear rolled off bass and bumps or dips from many headphones. Again, the Edition 8s are almost as neutrally balanced as I think a headphone should be. They might be slightly mid-bass heavy, but as I've argued in the past, this is a musically grounded choice.

The Ultrasonic's bass is not perfect, however. Drums and bass can be slightly indistinct. In addition, I didn't get the impression that the bottom octave was as powerful as on, say, the Sennheiser HD 800s. These are small problems, however, and overall the Edition 8s have very good bass.

Beyond frequency balance, it is important

to think of headphone performance in terms of some broad overall parameters. The first of these can be called naturalness, which is the ability of a headphone to avoid distortions that call attention to the fact that music is reproduced rather than live. In this, I rate the Ultrasones very highly, and a bit higher than the Sennheiser HD 800s (which also excel in this parameter).

I also like to consider the vividness of a headphone, which is ability of the headphone to make music sound intense and realistically alive. Again, the Ultrasones are quite good in this area, though they don't quite reach the highest rank because they simply don't

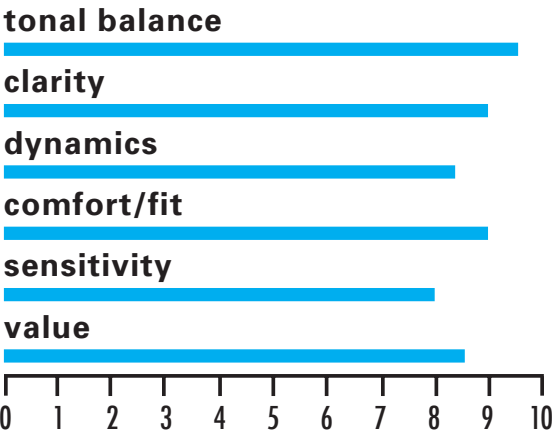
seem as purely transparent or dynamic as live music does. The Denon AH-D5000s, of the headphones we had for direct comparison, were a bit more vivid (though there is a price

specs/pricing

Accessories: Mini-plug to phone jack extension cord, leather carrying bag
Weight: 260 grams
Sensitivity: 96dB (input unspecified)
Impedance: 30 ohms
Price: \$1499.00

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RATINGS



for this—namely, somewhat more colored tonal response).

Finally, the Edition 8s make instruments sound quite natural, but they don't sound completely open. Instrumental separation is very good. But instruments sound more like they are being played in a studio than in a live space. Since this is often the case, the Ultrasones may mostly be rendering what is on the recording, but you also sense that overtones aren't as well rendered as the main body of an instrument. Another way of saying this is that the Ultrasones can sound slightly over damped, which I think is preferable to having obvious ringing distortion. Still, the Sennheisers have the Ultrasones bested in the part of virtual reality that comes from openness.

MUSICAL EXAMPLES

On Alison Krauss and Union Station's song "Forget About It" [*Alison Krauss & Union Station – Forget About It*, Rounder], there is a solo violin playing during the introduction. The violin has gorgeous tone and as the dynamic trails off you can hear it down to a very low level, which is very good performance. But you'd like to hear more overtones from the violin (which is even lower level material) and that isn't clear. On that same disc, the song "Maybe" has a drum thwack during the opening and the Edition 8s deliver it with startling power. Only the slightly clouded definition of the drum skin's vibrations keeps one from perfection.

On Mary Black's song "Leadboys Lassie", from *By the Time It Gets Dark* [Gift Horse], Mary's voice is very clear, as are the

surrounding instruments. The accompanying acoustic guitar sounds like a complete guitar—strings and body. If anything, the body might be over-represented, but this natural warmth seems just right because it doesn't call attention to itself. "Trying to Get the Balance Right", also from that disc, has a piano accompaniment in which the piano sounds almost real, with left and right hand tonal accuracy plus a pleasing lack of dynamic brittleness.

COMPETITIVE COMPARISON

The most obvious direct competitor to the Edition 8 would be the Sennheiser HD 800. In side-by-side comparisons, here are some key differences I observed between the Edition 8s and the HD 800s:

- The Edition 8s are a little more accurately balanced in the upper midrange.
- The Edition 8s are slightly brighter than the HD 800s; the difference is small, but I prefer the Ultrasones.
- The Edition 8s have somewhat more mid-bass than either live music or the slightly reticent HD 800s; Edition 8 bass balance seems better, though I think taste is a factor here.
- The HD 800s seem to have better deep bass.
- The HD 800 balance yields a more mid-range focused sound, which some might prefer.
- The HD 800s are slightly softer; they are also more forgiving of bad recordings (a strength of both models, actually).
- Instrumental "air" seems more audible on the HD 800.

COMFORT FACTOR/ACCESSORIES

The Edition 8 ear cups are soft and the clamping force is moderate. I thought they were comfortable for long periods, helped by their low weight. They might, however, aggravate pressure points after very long sessions.

The Edition 8s come with a one-meter cord and a mini-plug. If you're using them in portable mode, that's good; for everyone else an extension cord is in order. With an extension cord I didn't like the fact that the plugs would

yank the headphones if they fell off my lap.

I didn't find the Edition 8s to be particularly amplifier sensitive. I used the Woo Audio WA22 prototype for much of my listening, but the Luxman P200 sounded very similar.

BOTTOM LINE

Ultrasones's Edition 8 is a well-balanced headphone that gets out of the way of the music. You'll have to look long and hard for flaws. **PB**

