

October 2003

Shunyata Research Hydra Model-8 Power Conditioner

by Marc Mickelson

*"Chalk up another Reviewers' Choice
nod for this wonderful product."*



In his great essay "Phyletic Size Decrease in Hershey Bars," natural historian Stephen J. Gould discusses Cope's rule of phyletic size increase, which notes that most vertebrate lineages increase in physical size over time. "The opposite phenomenon of gradual size decrease is surpassingly rare," says Gould, using the Hershey Bar and its slow but gradual reduction in size over time as an example. Gould also notes that with the Hershey Bar, as size decreases, cost increases -- buyers get less chocolate for their money. In a comical bit of extrapolating, Gould shows that historical patterns "prove" that in the future the Hershey Bar will weigh zero ounces but won't cost anything near zero cents.

I'm not sure that phyletic *size* increase is necessarily a governing rule of high-end audio, but it certainly is true that prices generally increase as an existing model ages or becomes completely extinct and is thereby replaced by a new species -- um, model. How many times have you seen the Mk II version of any audio product cost less than its predecessor? If it did, the company that makes it would surely have to concede that it doesn't perform as well as the original version or have to ditch features to make up for the difference in cost.

Behold the Shunyata Research Hydra Model-8 power conditioner, the exception to high-end audio's

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Review Summary

Sound "Characteristic clarity -- as though the original Hydra were still in use -- but also naturalness and organic flow"; "resolution was as high as ever, but it was paired now with a greater sense of ease and rightness."

Features Complete revision of original Hydra that now includes eight cryogenically treated outlets and surge/over-current protection; Shunyata Research Diamondback power cord comes standard.

Use "If you want to wring every last iota of performance out of the Model-8 you'll need to add one of the upscale and pricey Shunyata Research power cords, but don't feel like you

variation on Cope's rule. The original Hydra was wildly successful, with over 500 sold before its run came to an end earlier this year. But instead of just continuing to produce the Hydra or coming out with an incrementally better Mk II unit that costs more, Caelin Gabriel, head tinkerer at Shunyata Research, decided to redesign the Hydra, taking into account a couple of quips about the original unit. These include the original's six outlets, which couldn't accommodate complicated audio systems or larger home-theater systems, as well as the issue of surge protection, which the original Hydra lacked but some of its competition didn't.

need to do this or you'll suffer."

Value "Shunyata Research has seemingly done the impossible with the Hydra Model-8: improved upon a very good existing design in terms of its functionality and performance, *and* lowered its price as well."

So in re-seeing the Hydra, Gabriel increased its outlet complement from six to eight, with half of these dedicated to analog use (including preamps and power amps) and half to digital. He also developed the serious-sounding Trident Defense System and incorporated it into the Hydra Model-8. This addresses power surges/spikes and over-current conditions in three ways. First, there's the Venom filter (more creative names!), Shunyata's four-element capacitive array designed to eliminate over-voltage spikes of only a few volts to beyond 1000 volts on transients. There is also a six-element array of TMOVs that provides 6000 volts of over-voltage protection and up to 60,000 amps of peak-current protection. TMOVs are, according the Shunyata Research, "next-generation devices" -- "20mm varistor discs that have integrated, internal thermal protection" and can't "explode or catch fire in the rare event of a catastrophic over-voltage condition." Finally, the Hydra Model-8 uses a Carling electromagnetic circuit breaker with large-surface-area contacts to allow for unrestrained current flow but also shutdown in the event of over-current episodes that exceed 20 amps. Shunyata Research is also quick to point out that the Model-8 is rated for 2400 watts of continuous power delivery -- "day after day."

But there's more in the way of enhancements to the Hydra Model-8 than the extra outlets and surge/over-current protection. The Model-8's power-distribution buss array has been refined and improved. The Model-8's buss bars are machined from cryogenic-grade CDA-101 copper, reportedly the highest purity available, and each is over five inches long and one and a half inches thick. The entire buss array weighs more than five pounds. The buss system is housed in a hermetically sealed internal aluminum chassis filled with Shunyata Research's FeSi-1002 compound, a synthetically manufactured ceramic material that is said to "perform a similar noise-reduction function within the Hydra Model-8" as it does within Shunyata Research's patented power cords. Proprietary Teflon-insulated silver wire, top-grade cryogenically treated Hubbell outlets, and a 20A Shunyata Research DiamondBack power cord round out the Model-8. The original Hydra used a 15A twist-lock connector for its power cord, but the Model-8 replaces this with a more standard 20A connector (*not* the same thing as the 15A IEC receptacle on most audio equipment), which makes it a bit easier to swap out power cords (something I did and will comment on below).

The Hydra Model-8 measures 13"W x 9 1/4"D x 5 3/4"H and weighs 17 pounds. There are no indicators or switches on the front panel, with the outlets, 20A connector, and breaker on the back. One concession to cost is certainly the new chassis, which looks nice but is not as classy as the Corian and granite casework of the original Hydra. If this matters greatly to you, you will probably find the Model-8 to be an example of de-



evolution. However, like the original unit, the Model-8 is actually a chassis inside of a chassis, with the inner case holding the buss bars, wiring, and FeSi-1002 compound. Oh, and one more change: the Model-8 costs \$1995 USD, \$500 less than the original Hydra.

Review system

I used the Hydra Model-8 in two audio systems. In the first system were Magnepan MG1.6/QR or Thiel CS2.4 speakers, a Mark Levinson No.383 integrated amp, and Esoteric DV-50 universal audio/video player, all connected with Analysis Plus Solo Crystal Oval interconnects and Solo Crystal Oval 8 speaker cables. Power cords were Shunyata Research DiamondBack, Python and Taipan. The second system, my reference system, consisted of Wilson Audio WATT/Puppy 7 speakers driven by Lamm ML2 or ML1.1 amplifiers, a Lamm L2 Reference preamp, a Zanden Model 5000 Mk III DAC, and a Mark Levinson No.37 transport. Interconnects and speaker cables were from Nordost (Valkyrja) or Shunyata Research (Aries and Andromeda). I also used a pair of Mark Levinson No.434 amps in this system. Power cords were Shunyata Research Anaconda Vx, Anaconda Alpha, and Taipan. In both cases, the power cord to the Model-8 was a 20A-terminated DiamondBack or Anaconda Alpha -- details on the differences below. For comparison, I used a pair of heavyweights: an original Shunyata Hydra and a Sound Application XE-12S with 20A Elrod power cord.

Grant Samuelson at Shunyata Research ran in the review sample of the Hydra Model-8 for a while before I received it, and for good measure, I put more time on it before doing any critical listening.

The eight-headed monster

I wrote a sidebar for [our 2001 review of the original Hydra](#) and have used the unit as part of my reference system since that time. The clarity of the Hydra made it a natural for my reference system, as did the fact that it replaced a PS Audio P300 Power Plant, into which I could only plug a few of my components. The Hydra was an easy Reviewers' Choice -- it offered state-of-the-art performance *and* cost less than a good amount of its competition.

Imagine then my delight when I first sat down to listen to my all-solid-state second system with the Hydra Model-8 and heard not only that characteristic clarity -- as though the original Hydra were still in use -- but also naturalness and organic flow, things I hear in abundance from my reference Lamm electronics. The quick explanation for all of this would be that the Hydra Model-8 was further stripping away layers of power-line noise that were not only masking the clarity of the music but also accounting for the solid-statey character of this second system. Whatever the case may be, resolution was as high as ever, but it was paired now with a greater sense of ease and rightness -- elusive characteristics to describe but ones that are easy to hear when they're there.

For example, not all SACDs are created equal. The sound of some is really nothing to praise in comparison to that of the finest CDs (although it's often SACD's improvement over the same CD that matters). A good example of this is pretty much the entire bunch of Peter Gabriel SACDs (excluding *Security* [Universal Music 069 493 623-2], which does sound pretty good on its own). The first three *Peter Gabriel* solo albums (unofficially titled *Car*, *Run*, and *Melt*) were never great-sounding on vinyl or CD because they all lack richness and weight. The Hydra Model-8 doesn't add these things -- it can't work magic -- but it does allow both a clearer "look" into the recording, which is still not the strength of these SACDs, and a welcome bit of ease to shine through. Then, on the best-sounding SACDs, like First Impression Music's *Autumn in Seattle* [FIM SACD 040] and *The Four Seasons* [FIM SACD 052], the Model-8 struts, helping to present a sonic picture in which the musicians are

distinct and yet part of the entirety of the soundstage itself, which is extremely well rendered. Thus, with the Model-8, it's even easier to hear into SACDs, which is really the greatest strength of the format, and enjoy them even more as well.

After the Model-8's successful debut in my second system, I was eager to move it into my reference system, where the original Hydra was firmly entrenched. Here, the Model-8 proved its worth as the Hydra did before it, sounding as lucid as its predecessor but also a touch more civilized. With this system, however, it's the clarity that matters most, so when Grant Samuelsen offered a 20A-terminated Anaconda Alpha power cord to use with the Model-8, "just to see what it can do," I didn't have to think twice. In my reference system, the Anaconda Alpha is the *only* choice for use with the Hydra. Bass is more nimble and dynamic, the midrange is a small degree more see-through, and the system's subjective sense of speed is greater. Now the bad news: the Anaconda Alpha costs \$1995 itself. Ouch.

Why the difference in sound from the power cords? I can only speculate, but the Anaconda Alpha is designed for use with amplifiers, so it makes sense for a cord that will help an amp get all of the power it needs to be used on a power conditioner into which an entire system is plugged. However, paradoxically, in my second system, I found that I liked the Model-8 more with the DiamondBack cord -- perhaps because that system is all solid state, perhaps because the system's strengths are what the Anaconda Alpha brought to my reference system -- bass nimbleness, midrange transparency, and speed. Whatever the reason, after you have become familiar with the Model-8, be willing to experiment with other power cords. I suspect that Shunyata's \$650 Taipan might be the bang-for-the-buck choice for use with the Hydra Model-8 among all of the company's power cords.

Comparison

I've sort of compared the Hydra and Hydra Model-8 throughout this review, but for greater context, I also compared the Model-8 to the very fine Sound Applications XE-12S, which I reviewed sometime back. Functionally, the XE-12S offers surge/spike protection and more outlets than the Hydra Model-8. It also costs more than double what the Model-8 does (\$4200) and doesn't come with its own power cord.

In terms of performance, I found that a gulf existed between the original Hydra and the XE-12S, with the Hydra sounding more clear and incisive and the XE-12S sounding more full and easy on the ears. The Model-8 bridges this gap, performing sonically very much like an amalgam of the original Hydra and the XE-12S. Earlier I would have needed to recommend one unit or the other to potential buyers based on the sonic outcome they wished to effect. Not anymore -- the Hydra Model-8 does it all. And if you need the dozen outlets of the XE-12S, you can buy a second Hydra Model-8 and still have money left over. There's also the matter of the Anaconda Alpha to consider with that extra cashola.

Finally, while I would say that the Model-8 certainly is better-sounding than the original, and I feel confident in saying this given that I used it in two rather different systems, the original Hydra is no slouch and will work wonders in systems for which its added clarity will be a prized commodity. I can also envision individual components with which the Hydra will be very useful -- my Bel Canto DAC2 always benefited from it, as did the Esoteric DV-50. I suspect there will be more than a few original Hydras showing up on the used market, which means that someone who couldn't afford one new will get a good deal on what is still a very fine power conditioner.

Conclusion

It's easy to become cynical about high-end-audio equipment, what with the often small

improvements that are wrought for escalating prices. But Shunyata Research has seemingly done the impossible with the Hydra Model-8: improved upon a very good existing design in terms of its functionality and performance, *and* lowered its price as well. The Hydra Model-8 can now be used in a wider array of systems, and its heart as a true high-end product has been enhanced. I especially like the clarity the Model-8 bring to the music -- a holdover from the original Hydra -- but the new unit offers an enhanced sense of ease and tonal naturalness as well. As I noted, if you want to wring every last iota of performance out of the Model-8 you'll need to add one of the upscale and pricey Shunyata Research power cords, but don't feel that you need to do this or you'll suffer. The Model-8 weaves its sonic spell no matter which power cord you use to feed it.

The rule of phyletic size decrease may be more rare in nature than the idea of better performance and functionality at a lower price is in high-end audio, but the Shunyata Hydra Model-8 proves that it's not a myth. Chalk up another [Reviewers' Choice](#) nod for this wonderful product.

...*Marc Mickelson*
marc@soundstage.com

Shunyata Research Hydra Model-8 Power Conditioner

Price: \$1995 USD.

Warranty: Five years parts and labor.

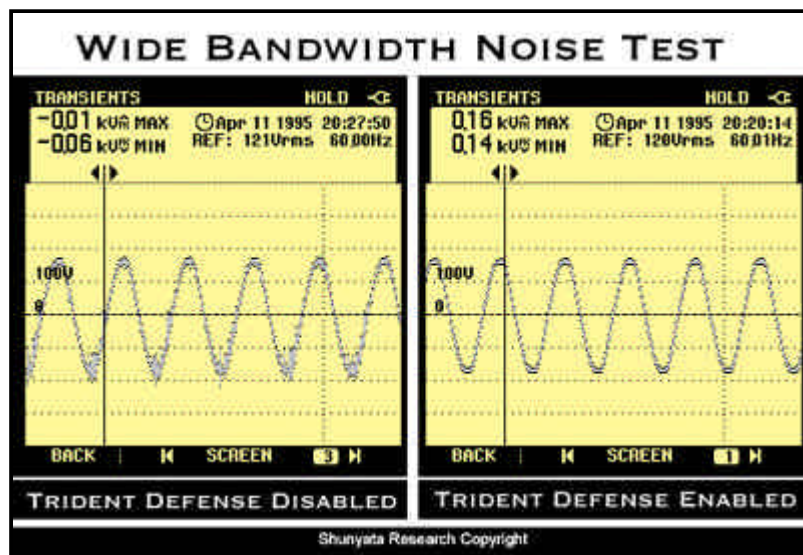
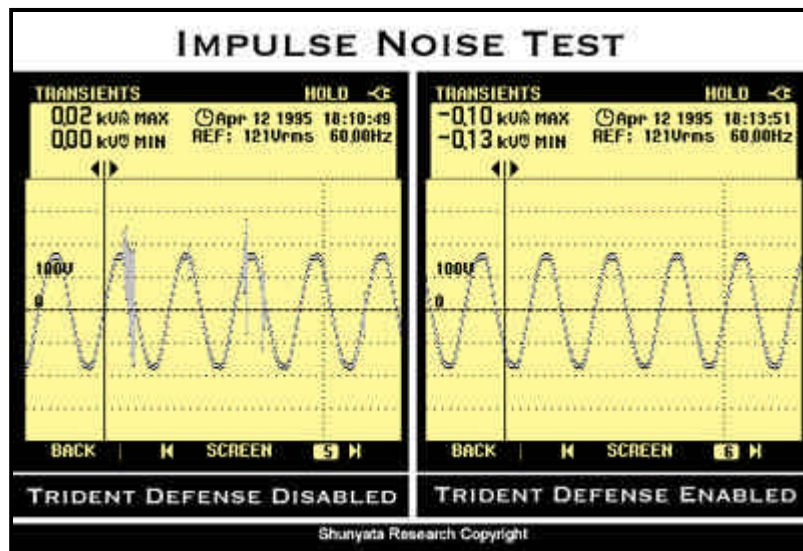
Shunyata Research Inc.
5594 N.E. Minder Rd.
Poulsbo, WA 98370
Phone: (608) 850-6752

E-mail: info@shunyata.com
Website: www.shunyata.com

Shunyata Research responds:

All of us at Shunyata Research would like to take this opportunity to thank Marc Mickelson for his detailed and thorough review of the Hydra Model-8.

Marc Mickelson's review offers convincing testimony of the Hydra Model-8's performance in differing system contexts. These results are strongly supported by the following test measurements, which illustrate the Trident Defense System's noise and transient cancellation capability.



The tests were performed with a production Hydra Model-8 with a switch added that allows the Trident Defense System to be selectively engaged. The test Hydra Model-8 was connected to a standard 20A duplex outlet. The instrumented test displays were obtained with a Fluke Model 43 Power Quality Analyzer.

Test 1 illustrates an impulse-noise test. A switched fan was used to create the impulse. This test simulates the power disturbance that is typical of an inductive load being switched on or off. Examples are air conditioners, refrigerators, and heating units. The left image shows the high-energy impulse that appears at the outlet with the Trident Defense System disabled. The right image clearly illustrates that the all transients and noise are eliminated when the Trident Defense System is engaged.

Test 2 illustrates a wide-bandwidth-noise source. The noise source used was a paper shredder, which is similar to other noise sources such as fluorescent lighting, vacuum cleaners, and dimmers.

We would like to make one point of clarification regarding the optional power cords available for the Hydra Model-8. The Hydra Model-8 is offered with one of three high-current-rated *PaceSetter* power cords. In its standard form at an MSRP of \$1995, the

Hydra Model-8 comes with the 20A-rated DiamondBack power cord. For those demanding a higher level of performance and current delivery, we offer the Hydra Model-8 with the Taipan power cord at \$2495. The Hydra Model-8 can also come supplied with the Anaconda Alpha power cord, but this combination is most commonly reserved for professional and studio applications.

Thank you again for an accurate and descriptive review of the Hydra Model-8.

Grant Samuelson
Shunyata Research

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