



## Boulder's 2008 Phono Preamplifier, 1012 DAC/Preamplifier, and 1060 Power Amplifier

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**W**hen Wayne Garcia first proposed that I review Boulder's new \$29,000 phono preamp—that's right, *phonostage only*—I thought, "Why not?" But in fact I had a sizeable chip on my shoulder. I've heard many of the so-called best of the ultra-expensive electronics in systems I know well, including my own, and never found them worth the money. Oftener than not they're no better sounding than moderately priced units, sometimes not as good, on occasion not even as well made. When they do sound better, the margin of superiority is frequently so tiny as to render the price differences ridiculous.

Bruce Van Allen, Boulder's public relations and field rep, requested that I also review the 1012 preamp/DAC (\$16,000) and the 1060 stereo power-amp (\$19,000). He felt that only in a complete Boulder setup would the designs reveal their full superiority.<sup>1</sup> I'll not leave you in suspense. We proceeded to comparative listening—Van Allen and my colleague Neil Gader joining me—the first thing spinning on the SME Model 20 Analogue Productions' LP of Sonny Rollins's *Way Out West*. My current reference is superb—Phonomena phono stage, Placette linestage, Carver A-720x power amp (this James Croft design one of the rare amps ever made that is actually flat into any speaker's impedance curve)—utterly neu-

tral, dynamic, and detailed. Then we switched over to the Boulders. Because we were at my place, Neil held his tongue, Van Allen likewise. The expression on my face—mouth agape, jaw properly dropping—was more eloquent than anything I could say. "Well, Paul," said Neil at last, "I wasn't going to say anything, but it certainly isn't subtle, is it?" No, it wasn't.

Right off, three things hit us. First, a transparency and sheer clarity—the speakers my trusty Quad

988s—that I had never heard before. Calling it brilliant, as if lights had illuminated what was previously dim, suggests the reference system is considerably less superb than it is and that the Boulders exhibit glare. Neither is the case. As I am not a photographer, I can't use Harry Pearson's photographic analogies, though I suspect they are close to what I'm trying to get at: a vividness in the rendition of Rollins' saxophone, present seemingly without veils.

Second was the dynamics. Mind you, this is not all that dynamically wide a recording, but the music emerged with an ease and freedom seemingly without dynamic limitations. The wooden blocks (or whatever) that set the initial tone and tempo came across with an immediacy that left us in disbelief. Once the cymbals and bass kicked in, the ensemble became tactile. Not necessarily realistic, for this is after all early stereo: Rollins left, his percussionist and bassist right, nothing much between. That's how the Boulder rendered them.



<sup>1</sup>This is true, but a single Boulder component will still make its presence obvious in any good or better system.



Third, there were a grip and control as difficult to define as they were confidence-inspiring to hear. Words like “rhythm” or “timing” applied to electronic equipment make little sense to me, but that elusive ability of a component to keep the presentation whole, integral, unfettered, unfrayed and unfrazzled under the most grueling of real-world dynamic conditions is what really separates a good to excellent system from a truly outstanding one. This the Boulder units accomplish to the highest, rarest degree.

Among other things, this translates into bass response stunning in its extension, articulation, and clarity. It's common knowledge Quads need a subwoofer for the deepest bass, but these electronics made me feel the need for one less than ever before. Put on Ray Brown's *Soular Energy*—in Pure Audiophile's magnificent new vinyl pressing or GrooveNotes's fabulous SACD reissue—and I doubt you'd even miss a subwoofer, so full, rich, and strong is the double bass, while Gene Harris's piano floats above, around, and through it.

On full-scale symphonic material, like the glorious vinyl of Bernstein's *Carmen* [DG], the impression of being in a theater is breathtaking. Placement of the brass instruments as they sound and resound is such that you can practically diagram them on their tiers, while bells and cymbals dazzle with crystalline clarity. The whole vast panorama of orchestra, soloists, and multiple choruses was reproduced with such transparency of texture, truth of tone and timbre, and size and depth of soundstage that visualization became not just easy but almost second-nature.

Tube fans may find the Boulders dry, because they completely lack the *bogus* bloom of tubes—an effect I blissfully succumb to, though it's still an overlay, however lovely. The Boulders, by contrast, reproduce every recorded ambience uniquely. A somewhat distant, beautifully atmospheric recording like Cincinnati's new Stravinsky program [Telarc SACD] blooms as ripe and juicy as you please, while the multi-miked Levine *Don Quixote* [DG] sounds both luscious and ravishingly intimate.

The Boulders make an unprecedented amount of detail available. Please note my word choice: *available*. They don't shove detail at you or flood arlights everywhere by hyping the upper midrange and lower highs. At first, the control and detail are so extraordinary you might think the sound analytical. But once you get used to it—the review units were already broken in, so I can't address break-in issues—it feels utterly natural: there for you to notice if you like yet never detracting

from the gestalt. Nor do they give you a false mellowness and depth by building a Gundry Dip into the response. Which means that closely miked vocalists are rendered with the full intimacy that is in the recording (on *Muddy Waters: Folk Singer* [MCA Chess, SACD or vinyl], the added reverb is instantly, nakedly audible).

So far I've discussed sonics as if these Boulder units were more or less interchangeable, because that is how they sound. But this review has mixed products from the company's two lines: the all-out-assault-on-the-state-of-the-art 2000 Series, of which the 2008 is the phono stage, and the “lesser” 1000 Series, to which the 1012 and 1060 belong (there is no separate phono preamp). A complete Series 1000, which includes the 1012 and 1060 stereo or 1050 mono amps, costs between \$35,000 and \$50,000. A complete Series 2000, which includes 2008, 2010 linestage, 2020 DAC, and 2060 stereo amp or 2050 mono amps, costs between \$135,000 and \$161,000. Inasmuch as I've not heard the whole line together, I have no way of knowing how much better those components are. But considering that the 1012 and 1060 are obviously, demonstrably state-of-the-art, how much better *could* the others be?

I did compare the 2008 with the 1012's built-in phono stage. Since for many audiophiles (and, alas, far too many reviewers), super-expensive equipment is sort of what they have in place of God, I am unsure what I can say without causing disappointment. Of course, the 1012's phono section isn't as good as the 2008. The former exhibits nearly all the transparency without *quite* the combination of the latter's absolute smoothness and absolute control. But it's still world-class.

Circuitry, topography, features, and overall design of these three units are far too complex to do anything but summarize here. Build, workmanship, and parts quality raise the bar so high it's virtually out of sight of most other manufacturers, even those who market similarly priced equipment. Before he founded Boulder, Jeff Nelson worked in film sound in Hollywood, where he met Deane Jensen, who developed a state-of-the-art gain stage called the 990 circuit. This became the basis of the 993 module, which lies at the heart of the 2000 Series electronics. The 2008 employs three 993s per channel, plus an additional gain circuit, called the 995, for low-level MC signals. A separate chassis houses the independent power-supplies: one for the relays and one each for the left and right channels and for the logic circuitry.

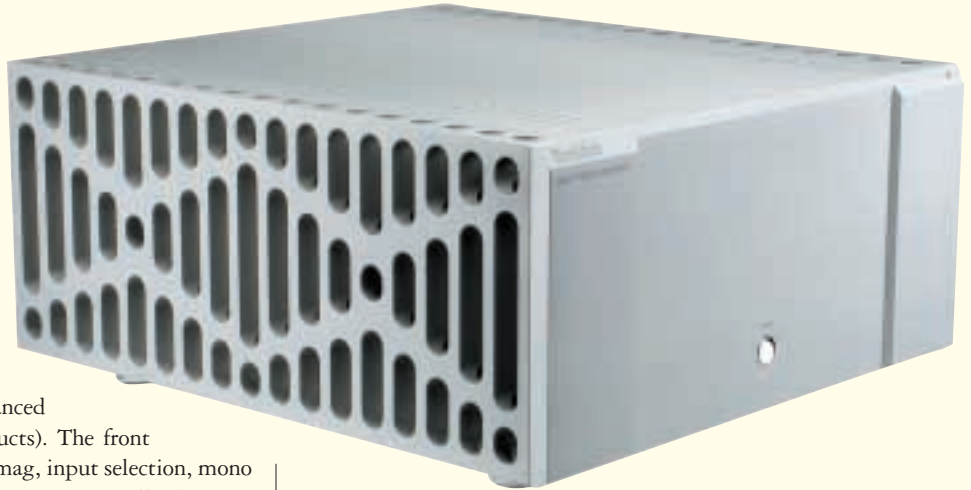


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The three inputs come with easily removable “Personality” cards, one for moving magnets and two at 100 ohms for moving coils. Two additional cards are provided for those who wish to solder in their own resistors to match any given MC exactly. There are two pairs of outputs, and a provision for connecting a demagnetizer thereafter available with the push of a button. All connections are balanced *only* (this is true of all Boulder products). The front panel has buttons for power, mute, demag, input selection, mono (hooray!), a low-cut filter (5, 10, 20Hz, or Out). Finally, there are three equalization selections: RIAA and two custom slots for as many as three optional cards.

Nelson’s philosophy is as anti-minimalist as it gets. According to Van Allen, “The fewest parts in the signal path can work well under ideal conditions, but not where you don’t have control over everything. Jeff’s designs can be taken out into the world and hooked up into any system, any product, any configuration and they will work, assuming they’re being used for the function they’re designed to be used for. And they will work for many decades, a minimum of fifty years.” The principal difference between the 1000 and 2000 Series is not in the circuitry or the topography, which is mostly identical, but in the execution. In place of all discrete circuitry and components, the 1000 Series employs a combination of discrete transistors and microcircuitry. Power supplies are internal (those in the 2000 line external), their feet less complex in their damping and isolation characteristics. According to Van Allen, 2000 Series components will not benefit from any after-market power cords or isolation feet or platforms; they are self-contained, to be used as is.

The 1012 preamplifier is a full-function unit designed to perform as both a state-of-the-art analog and digital preamplifier. In addition to its phono input (a switch selects 47kOhm mm or mc, fixed at a sensible 100 ohms), there are three other analog inputs. There are also three AES/EBU and one TosLink digital inputs. A substantial part of the 1012’s circuitry is devoted to an exceptionally sophisticated digital-to-analog converter. Again, there’s not space to detail the circuitry, nor do I have the technical competence to do so. Suffice it to say that the 1012’s DSP employs a proprietary algorithm, called rather coyly “upandoversampling,” that sends, in Van Allen’s words, “the maximum number of bits that the DAC can handle to the converter. If it’s a regular CD, we bring it up as far as possible without choking the DAC. The algorithm effectively makes a 16-bit word length 24-bits; then we resample it with another mathematical algorithm—it’s the same technology that enhances digital photography—from 44k to 705k per second, all done as one process. It was the most powerful DSP we could find at the time of the 1012’s design, and it’s still one of the fastest and most powerful.”



I can address only the sonic manifestations. With the Boulder being fed by the transport of Sony’s SCD-XA777ES, I have heard no finer reproduction of standard digital sources in my system this side of the Elgar. As with everything else from Boulder, the paramount impression is of peerless control, clarity, transparency, immaculate separation of line and texture, in sum, less “stuff” between you and the music. What makes the Elgar better? The dCS removes virtually any trace of electronics as such. Even with the best sources, the 1012, outstanding though it is, doesn’t quite achieve that, but then neither has any other Red Book digital reproduction in my system. My only other observation is that with some less than good sources I occasionally found myself wishing that discretion constituted a greater part of its valor.

The Boulder 1012 is my idea of a near-ideal preamplifier, its features and ergonomics so intelligently thought out they should become the textbook for the rest of the industry. The only reason for that “near” is the absence of a mono switch. Despite its complexity, the 1012’s operation is so intuitive I used it for days before consulting the manual. A large illuminated display, with adjustable brightness, lets you read all settings from across the room. A beautifully machined handset accesses volume, balance, polarity, mute, and source selection. Balance and volume pots move in 0.5dB steps, the volume pot having a hundred increments. Until you’ve enjoyed a balance control like this one, you have no idea the precision of imaging



that is possible no matter where you sit. The 1012 allows you to assign a name to each input, which appears in the display when you select it, and also to equalize levels among the inputs. When you switch from digital to analog, the digital electronics are *turned off*. According to Van Allen, “it’s the high speed clocks that create the noise, so what is turned off are the clocks, the DSPs, and the D/A converters. All that stays on is the front-panel display.”


I feel a bit silly using the word “bargain” in reference to a single component that costs this much, but in the context of super-expensive equipment the 1012 really does constitute an amazing deal. Consider that so-called state-of-the-art linestages, D/A converters, and phono preamps these days seem to *start* at four to five thousand, that few (if any) can boast comparable performance (and virtually none comparable build), and that this preamplifier combines three true state-of-the-art components into one chassis—suddenly that sixteen grand seems considerably less outrageous (the dCS Elgar alone is \$12,000, Boulder’s own 2020 DAC \$34,000).<sup>2</sup>

If I have left little space for the 1060 amplifier, it is because I don’t have much to say about an amplifier that seems to do its job perfectly. At 300 watts a channel, class AB, completely dual mono, with some of the most sophisticated and effective protection circuitry built into any amplifier, it drove every speaker I hooked up to it as if it weren’t there. In my system, it performed far, far better, especially with respect to neutrality and accurate tonal balance, than a competing amplifier costing almost twice as much (and to which the adjective “revolutionary” has been ludicrously applied).

These Boulder products are for all practical purposes beyond criticism in the normal sense of the word. Would I buy them for myself? The easy answer is that I can’t afford them. But that’s a feeble dodge to a serious question. When they were taken away and I hooked up my Quad 99 preamp to the Carver/Croft amp, I initially missed some of the Boulders’ fantastic detail and superhuman control. But within a day, especially once my old units, turned off for several months, had warmed up, I was enjoying music with no frustrated longing for “something better.” Indeed, this setup has a quite wonderful neutrality and musicality that I’d be hard-pressed to give up for any amount of money.

Perhaps the most honest answer would be to say that, along with the dCS Elgar, Boulder’s are the first and only stratospherically-priced audio components that I’d be tempted to buy if I could afford them. But even then, being a music lover first, an audiophile second, I could think of other, better things to do with the money, such as—sticking strictly to enjoyment of music—a concert tour of several of the musical centers of England and Europe, where my wife and I could hear the Vienna and Berlin Philharmonics, the Amsterdam Concertgebouw, the London Symphony, not to mention the

great opera houses, all with a transparency, naturalness, dynamic range, width and depth of soundstaging, and freedom from distortion that are more like the real thing than any reproduction because they *are* the real thing.

Of course, no audio components could withstand such a comparison, though these Boulders would certainly come up much less wanting than almost all others. Even if you can’t afford them, I urge a serious listen, if only to hear for yourself what can be done with electronics not just now but more than likely in the foreseeable future. Nelson designs them, and guarantees their performance, for literally a lifetime of music reproduction. Nothing I heard during the several months I was privileged to use them suggests there is the slightest hint of irony or hyperbole in that statement. 

#### SPECIFICATIONS

##### 2008 Isolated Phono Preamplifier

Gain: mc: 64 or 54dB; mm: 44 or 34dB

Input impedance: mc: 1000 ohm; mm: 47kOhm

Dimensions: 18" x 5.25" x 15.5" (main and power supply each)

Weight: N/A

##### Boulder 1012 DAC Preamplifier

Inputs: Three balanced line level, one phono

Outputs: Two balanced main, one balanced record

Features: Sampling rates: 32, 44.1, 48, 88.2, 96kHz (AES/EBU)

Upsampling: 32, 44.1, 48kHz; 16X, 88.2, 96kHz

DSP Speed: 1GFLOP, 167MHz clock

Dimensions: 10" x 5.75" x 15.75"

Weight: N/A

##### 1060 Stereo Power Amplifier

Power output: 300W per channel into 8, 4, or 2 ohms

Dimensions: 18" x 9.5" x 22.5"

Weight: 140 lbs.

#### ASSOCIATED EQUIPMENT

SME Model 20/IVi; Dynavector Karat, Sumiko Blue Bird, and Ortofon cartridges; Phonomena phono stage; Quad 99 and Placette Audio preamps; Quad 909, Sunfire Signature and Architect’s Choice, and Carver/Croft amps; Sony STD777ES and Quad 99-CDP CD players; Quad 988, Sonus Faber Amati, and Spendor S3/5 and S3/5SE speakers; Audio Physic Minos and REL Studio 3 subwoofers; Kimber, Hovland, and Nordost cables and interconnects

#### MANUFACTURER INFORMATION

##### BOULDER AMPLIFIERS

3235 Prairie Avenue  
Boulder, Colorado 80301  
(303) 449-8220  
www.boulderamp.com

Prices: 2008 Isolated Phono Preamplifier: \$29,000; 1012 DAC Preamplifier: \$16,000; 1060 Stereo Power Amplifier: \$19,000

<sup>2</sup>Those who believe that stand-alone CD players are preferable to transport/DAC separates can rejoice. By the time this reaches print, Boulder will have made the 1012 available sans DAC as the 1010 for \$11,000.