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2009
PRODUCT
OF THE YEAR
AWARDS



Audio Research Reference Phono 2

Standard-Setter

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PHONOSTAGE OF THE YEAR

Audio Research Corporation Reference Phono 2

Only the second phonostage in ARC's long history to be named a "Reference" unit, the Ref Phono 2 is not only the most ambitious phonostage that the Audio Research Corporation has ever made, it is also the most versatile, the most expensive, and unquestionably the most successful. The gap between the virtues of solid-state and those of tubes, which ARC has steadily been attempting to bridge for the nearly forty years, has never been narrower than it is here. This is simply the lowest-noise, highest-resolution, most lifelike tube phonostage JV has auditioned—fast, clear, colorless, transparent to sources, with superb extension and resolution in the treble, unparalleled (for tubes) extension, resolution, and grip in the bass, and an overall sonic realism that puts it in a class by itself. Equipped with two inputs (for mono and stereo cartridges on separate tonearms), two outputs (including a balanced out), remote-controllable loading, and—in what is an ARC first—user-selectable equalization curves (Columbia and Decca curves in addition to the standard RIAA), the Ref 2 is not only the best-sounding phonostage in ARC's storied history, it is the most flexible. Yes, it is costly. Yes, it is worth it. And, yes, it is TAS's 2009 Cost-No-Object Phonostage of the Year. Heck, it is the Phonostage of the Decade. (Reviewed in this issue)

I listen to music almost every day. Which is to say, I hardly ever listen to CDs.

Call me a Luddite but I'm married to the sound of vinyl. No, it's not because I enjoy the rituals and routines of analog playback. I don't thrill to the agonies of setting up a new tonearm or cartridge, I don't spend hours minutely dialing in VTA for each and every disc, I abhor disc-washing, and I'm not even wild about coaxing forty-to-fifty-year-old LPs out of plastic bags or paper sleeves, slipping them onto spindles, tightening down record clamps, and cueing up tonearms. Yeah, record jackets and liner notes are cooler than jewel-box booklets or metadata readouts, but if fetishism were all there were to LP playback I'd drop the whole enterprise in a heartbeat. I'm married to the sound of vinyl because, at its best, it comes closer to the sound of the real thing than any digital medium I've heard, high-res or low. Just lately it's come even closer, thanks in part to the little number I'm about to review.

In its long history the Audio Research Corporation has made many phono preamps. Indeed, ARC built its sterling reputation on a succession of preamps primarily intended to equalize and boost the low-level signals of moving-magnet, moving-iron, and (eventually) moving-coil cartridges. Back in the day that was virtually *all* they were

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designed to do. The SP3, the SP3a, the SP3a-1, the SP6, the SP6b, the SP8, the SP10, the SP10 Mk II, the SP11, even the budget SP9 were primarily phonostages. Then the CD came along with its oily voice and its guinea charm—and finished what guys like John Curl and Mark Levinson had started. It broke the preamp in two. One of the first unintended consequences of Perfect Sound Forever was the ascendance of the linestage preamplifier. The lowly phonostage was exiled to its own box, and as time went by those boxes generally got smaller and smaller until some of them finally shed their chassis altogether and turned into plug-in cards or just...disappeared.

If you want to know why I've been an ARC loyalist these many years, it is partly because William Zane Johnson *didn't* give up on the LP. Oh, he split his preamps in two, like everyone else. He had no choice if he wanted ARC to remain competitive in a CD world. But he kept designing new and better phonostages, even when the future of the LP looked grimmest. (Funny, isn't it, that, a few decades down the road, the LP is still holding its head well above water, while the SACD sleeps with the fishes—and Perfect Sound Forever may soon join it?) When ARC slapped the label "Reference" on its most advanced products at the turn of the last century, there was a bigod Reference phonostage—the Reference Phono 1—to go alongside the Reference 1 linestage. However, when the Reference Phono 1 was phased out in 2005, Johnson and Company gave us the marvelous (and wholly superior) PH7 as a replacement—but no Reference Phono 2. A few of us wondered if that spelled the end for "Reference" ARC phonostages, especially since the PH7 was so good it was going to be hard to top. But, no, WZJ and the crew at ARC were merely playing possum.

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Actually what they were doing was five years of intense R&D. The results of which should put to permanent rest the notion that ARC isn't still as serious about vinyl as it was on the day when the SP3 first saw light. The Reference Phono 2 may have been a long time coming, but it is unquestionably worth the wait. Quite simply, this is the most ambitious, the most versatile, and, at a cool \$12k, the most expensive phono preamp Audio Research has ever concocted. It is also, I am delighted to say, the most completely successful—a fitting capstone to nearly a half-century of engineering excellence.

Since its start, ARC has been trying to bridge the gap between the virtues of solid-state and the virtues of tubes. With the Reference Phono 2, that gap has been narrowed to an unprecedented extent. The things that tubes traditionally give away, wholly or in part, to solid-state (things that even the wonderful PH7 gave away, albeit far fewer of them than previous ARC phono preamps)—grip, definition, and rhythmic clarity and precision in the bottom octaves; grip, extension, and power in the top ones; transient speed, dynamic impact, and lower noise overall—the Reference Phono 2 does *not* give away. Here, for the very first time in my experience, is a tube (well, tube-hybrid, as you will see)



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realistic everywhere—bass, midband, and treble.

Clearly things have changed in this circuit—noise has been lowered, transient speed has been accelerated (although not at the expense, as is sometimes the case with solid-state, of the full utterance of the note, the scanting of steady-state tone and decay), resolution has been raised. ARC appears to have accomplished this via a literal mating of solid-state and glass devices. Although the Reference Phono 2, which is a *big* phono stage (twenty-seven pounds!), has the exact same tube complement as the new lineage Reference 5 (four 6H30s in the gain stage and a 6550C and another 6H30 in the power supply), it also uses “high-gain, extremely low-noise” FETs in the input stage (instead of a transformer). While

there is nothing particularly new about this wedding of tubes and transistors *chez* ARC, the parts (ARC is using

“proprietary” new capacitors and transformers throughout) and their implementation (the power supply in the Reference Phono 2 boasts eleven stages of regulation) must be markedly superior; there is no other way to account for the lower noise and obvious gains in transparency, resolution, and realism.

While the sound of the Reference Phono 2 as an RIAA phono stage is the lead story, there is another story. The Reference Phono 2 is the first ARC phono stage to offer alternative EQ curves. (It also has two phono inputs—for two separate tonearm/cartridges—and two phono outputs, one of which is balanced, as well as the usual panoply of ARC conveniences, such as remote-controllable cartridge-loading at a wide number of settings from 50 ohms to 47k Ohms, remote-controllable phono stage gain, remote-controllable everything.)

If I were forced to choose a single ARC product to keep in my system it would be the Reference Phono 2.

Alternative EQ curves (the Ref Phono 2 has an RIAA, a Columbia, and a Decca curve) are a bit of a hot-button topic, about which I've written on the Forum at our Web site arguide.com. Optional EQ curves made sense back in the early fifties before the RIAA curve (which is essentially the RCA New Orthophonic curve) was supposedly adopted as a standard around 1953. Before this, recording outfits EQ'd mono LPs to “house” curves that had different hinge points and different amounts of cut and boost in the bass and the treble than RIAA/RCA. While a great sounding blue-label Columbia—like the 1950 mono recording of Lou Harrison's gorgeous Suite for Harp and Cello—still sounds great via RIAA equalization, it unquestionably sounds better via Columbia's own curve. Ditto for the Decca curve with Decca group, DG, EMI, and Philips mono LPs from about 1950 to, maybe, about 1955. The trouble—if that's the right word—comes at the dawn of the stereo era.

As far as I can see—and I've looked into this question—every major record company, here and overseas, used RIAA

phonostage that doesn't melt in the bass like a candle dripping wax or flicker out into wisp-of-smoke softness in the treble, that doesn't lock up the brakes on starting transients, that doesn't flood the soundfield with soft plush grain. Here is a phono preamp that will not only reproduce the guitars of Peter and Paul—the sweet interplay of which almost exactly duplicates the gorgeous harmonies of their tenor and baritone voices—on “Don't Think Twice” from PPM's superbly recorded LP *In the Wind* [Warner], but that will also resolve Edgar deHass' buried-in-the-mix standup-bass lines with a clarity that not only reveals each note of his tasteful accompaniment but also reveals the way each note is being played. Here is a phono stage that can (and does) clearly resolve each word of the whispered refrain of Ricki Lee Jones' “Just Walk Away, Renee” (from *Girl At Her Volcano* [Warner]) or Leon Redbone's Foghorn Leghorn delivery of “Sweet Mama, Papa's Getting Mad”—lyrics that were previously almost impossible to hear (although no small credit also has to be given to the utterly transparent Soultion 720 preamp and Soultion 710/700 amps, for which see p. 138)—and, at the same time, will literally make you jump out of your seat on a hard, quickly damped timp strike, like, oh, the fabulous one toward the close of Dorati's *Firebird* [Mercury], which it delivers without any of the initial lag and subsequent overhang-like blur of typical tube phonostages. Indeed, here is a phono stage that sounds so much like a great solid-state phono stage, albeit with sweeter more fully resolved timbres and textures, that I was at first nonplussed. Out of the box the Ref Phono 2 just didn't sound ARC-like. Indeed, it sounded *too* much like solid-state—darker in balance and flatter in aspect than the admittedly grainier, but also bloomier, airier, more color-neutral PH7.

I had nothing to fear, of course. It only took several dozen hours of break-in to turn the Ref Phono 2's tonal balance from a shade dark to a dead-center neutral that made even the very neutral PH7 sound tipped a little toward the treble, and to add so much air and bloom and dimensionality that the soundfield became a virtual diorama (assuming, of course, that an LP permits such depth of stage and image). Wed these tube-like textures, timbres, air, bloom, and soundstaging to solid-state-like speed, grip, impact, and extension and you've got what is, overall, the most lifelike and transparent-to-sources phono stage I've heard. The best of it is that this realism is no longer restricted primarily to the midband; the Reference Phono 2 is



SPECS & PRICING

Frequency response: +/-0.2dB of RIAA, 10Hz to 60kHz: 3dB points below 0.5Hz and above 300kHz

Distortion: .002% at 1.0V RMS 1kHz BAL output

Gain: Selectable 51dB (Low), 74dB (High) at 1kHz, BAL; 45dB (Low), 68dB (High) at 1kHz, SE (mc & mm compatible)

Input impedance: 47k Ohms and 100pF, SE. Additional selectable loads: 1000, 500, 200, 100, 50 ohms, and Custom

Phono equalization: (Selectable) RIAA, Columbia, Decca

Polarity: Non-inverting

Output impedance: 200 ohms SE, 400 ohms balanced

Recommended load: 50K-100K Ohms and 100pF

Maximum input: 250mV RMS at 1kHz (680mV RMS at 10kHz)

Rated output: 0.5V RMS 10Hz to 20kHz, 100k Ohm load

Noise: 0.22uV equivalent input noise (High Gain) (65dB below 0.1mV 1kHz input)

Tube complement: (4) 6H30 dual triodes, plus (1 each) 6H30, 6550C in power supply

Dimensions: 19" x 7" x 15.5"

Weight: 27 lbs.

Price: \$12,000

AUDIO RESEARCH CORPORATION

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JV's Reference System

Loudspeakers: Magico M5, MartinLogan CLX, Focal Diablo Utopia

Linestage preamps: Audio Research Reference 5, Soultion 720, BALabo BC-1 Mk-II

Phonostage preamps: Audio Research Reference 2, Audio Tekne TEA-2000, Lamm Industries LP-2 Deluxe

Power amplifiers: Audio Research Reference 610T, Soultion 700, Lamm ML-2, BALabo BP-1 Mk-II

Analog source: Walker Audio Proscenium Black Diamond record player, AAS Gabriel/Da Vinci turntable with DaVinci Grandezza tonearm

Phono cartridges: DaVinci Grandezza, Air Tight PC-1 Supreme, Clearaudio Goldfinger v2

Digital source: dCS Scarlatti with U-Clock, Soultion 740, ARC Reference CD8

Cable and interconnect: Tara Labs "Zero" Gold interconnect, Tara Labs "Omega" Gold speaker cable, Tara Labs "The One" Cobalt power cords, MIT Oracle MA-X interconnect, MIT Oracle MA speaker cable, Synergistic Research Absolute Reference speakers cables and interconnects, Audio Tekne Litz wire cable and interconnect

Accessories: Shakti Hallographs (6), A/V Room Services Metu acoustic panels and corner traps, ASC Tube Traps, Symposium Isis equipment stand, Symposium Ultra equipment platforms, Symposium Rollerblocks, Symposium Fat Padz, Walker Prologue Reference equipment stand, Walker Prologue amp stands, Shunyata Research Hydra V-Ray power distributor and Anaconda Helix Alpha/VX power cables, Tara Labs PM 2 AC Power Screens, Shunyata Research Dark Field Cable Elevators, Walker Valid Points and Resonance Control discs, Clearaudio Double Matrix record cleaner, HiFi-Tuning silver/gold fuses

equalization for its stereo LPs, starting with the very first stereo releases in 1958. There is, admittedly, controversy about this, with certain folks claiming that Columbia was still using its own EQ right through the late sixties/early seventies and that Decca was doing the same thing. Unfortunately, there is no evidence to prove this outside of the evidence that your ears provide.

ARC has made an all-out effort to precisely duplicate the Columbia and Decca curves—and it is to be congratulated for providing mono-LP hounds with these resources. At the same time, to have made what is, IMO, far and away the highest fidelity RIAA phonostage in company history and then to leave certain users with the impression that they might be better off trying out alternative curves with their Columbia and Decca stereo LPs is, well, debatable. The problem with alternate EQ is that some poorly engineered stereo LPs (the assumption that EQ was *correctly* applied in every instance is clearly and audibly false) may, indeed, benefit from different equalization—I have heard this myself, most recently with a stereo recording of the Miaskovsky String Quartets on Melodiya, which definitely sounded more like real music via the Decca curve than via the RIAA curve. My problem is this: Am I re-equalizing a poorly recorded record, acting as a virtual mastering engineer after the fact, and making a "poor" record sound "good," or am I actually applying the correct equalization—the equalization that Melodiya itself used—and hearing the record the way it was supposed to sound? I'm afraid there is no clearcut answer to this question.

EQ can make vast differences in the listenability of *any* recording. The question becomes: Do you want to hear what you were intended to hear (even if those intentions were not well executed) or do you want to hear something different? You will have to decide for yourself, although I can tell you that I generally use the Columbia and Decca curves with early monos. (Which, BTW, confers no small advantage in playing them back.)

Does the Reference Phono 2 have any sonic "weaknesses." Well, none I consider major. It is a little "forward," as all ARC gear is. (By this I mean that it starts imaging a little more towards the plane of the speakers; this does not affect stage depth or width, which are phenomenal given the right disc.) It may not be as finely detailed in the heart of the heart of the midrange as something like the superb tube/transformer Audio Tekne TEA-2000, which, for example, resolves every quaver of Alison Krauss' tremolo with a microscopic clarity that the Ref Phono 2 doesn't quite match. (OTOH, the Ref Phono 2 kills the Audio Tekne in the bass and the treble.) It doesn't have the sheer heft and solidity of something like the Soultion 720 phonostage (nor is its noise level quite as low). It sounds better, IMO, with its top cover removed. And...well, that's about it.

As you know, I'm a huge ARC fan—I like and strongly recommend virtually everything the company makes—but I can honestly say that if I were forced to choose a single product from the Audio Research line to keep in my system (and, thank God, I'm not) it would be the Reference Phono 2. Given my analog bias, this isn't entirely surprising. But it is also a testament to the exceptional quality of this masterpiece, which is simply the most neutral, the most transparent, the (for the most part) highest resolution, and most persuasively lifelike phonostage I've heard. Now, go forth and audition one.

