

# EQUIPMENT REPORT



## Magneplanar 1.7 Loudspeaker

Get Out The Mastercard!

Jonathan Valin

Not too long ago I proposed an article to our Editor in Chief, Mr. Harley, to be called “What Would You *Really* Buy?” By this I didn’t mean what our reviewers would buy if they had access to a Rubidium Mastercard, but what they could actually afford with their own meager funds. Without a question or a doubt, the speaker I’m about to review is the one I’d opt for—and (unless it’s been replaced by something even better from Magneplanar) will be the one I *do* opt for when the Magico M5s and Soudation 700s stop showing up at my door and I’m finally turned out to pasture.

The \$1995 Magneplanar 1.7 boxless, floorstanding, dipolar (they radiate equal sonic energy front and back), quasi-ribbon loudspeaker—the first new loudspeaker from Magneplanar in better than a decade—was the most eagerly anticipated introduction at this year’s CES. Happily, its debut turned out to be a smashing success. Even more happily, its “debut” in my listening room has been a smashing success. I have now listened to the 1.7s for almost four months, and I can say with confidence that they are worthy successors to the 1.6s, the speakers I have long thought (and often called) *the* best buys in high-end audio.

Truth be told, I think the 1.6s also are (or were, prior to the arrival of the 1.7s) the best speakers in the Maggie line, at least in one (to me) critical respect. Much as I admire the “true ribbon” Maggie 3.6s and 20.1s (both of which I’ve reviewed in various iterations), I have always had a problem with, well, their true ribbons. Precisely because of their superiority in transient response and resolution, Maggie’s true ribbons have always stuck out a bit compared to the quasi-ribbon or planar-magnetic panels they are mated with. Indeed, I have generally had a problem with speakers that attempt to mate a ribbon or electrostat to any other driver, save for another ribbon or electrostat (although see my review of the Nola Baby Grand References in this issue for a notable exception). Yes, Maggie’s true ribbon is a marvel of speed, resolution, low distortion, and extension, and, yes, it was and remains superior in those regards to the “quasi-ribbon” that Maggies uses in the 1.6 and now the 1.7. But when you can persistently hear a driver as a separate element in the presentation, it makes the speaker as present as the music it is reproducing, rather spoiling the illusion that you are listening to one seamless transducer, which, as I’ve noted in the past, is as close as hi-fi gets to creating the illusion that you are listening to *no* transducer.

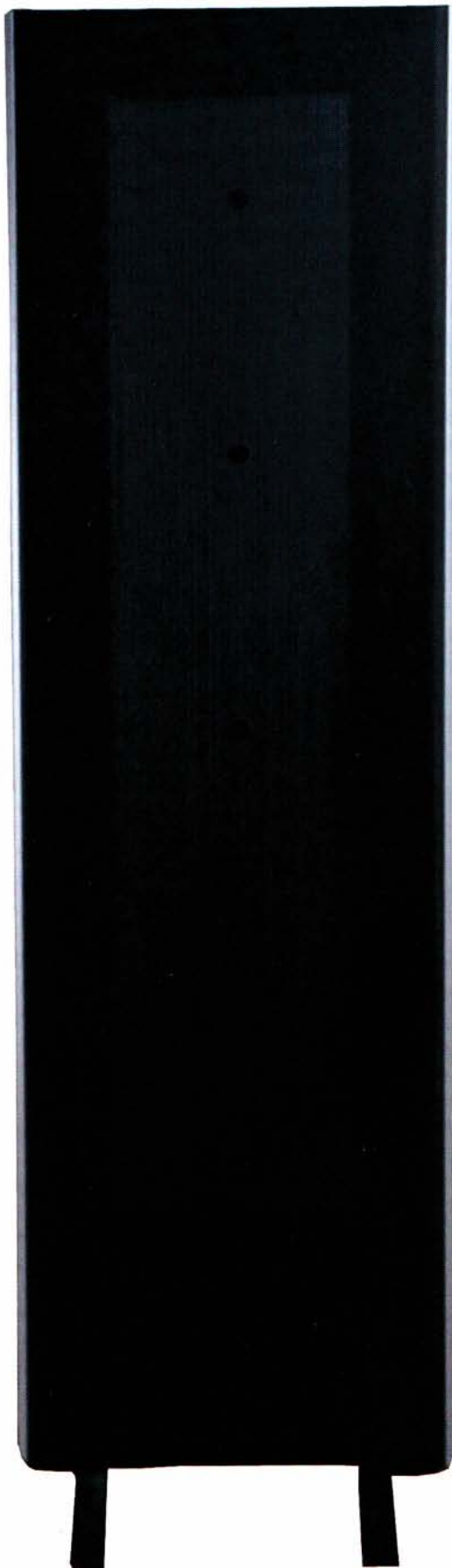
For those of you who don’t understand the difference between “true” and “quasi” ribbons, let me explain. In a nutshell the incredibly lightweight foil of a true ribbon *is* the driver—it simultaneously conducts the signal and vibrates to turn it into sound waves. In a “quasi-ribbon,” the foil is not the driver—or not exactly. In a quasi-ribbon, that strip of aluminum foil is itself

attached to an extremely lightweight strip of Mylar; the foil, which is suspended between permanent bar magnets, acts as the signal conductor (a planar voice coil, if you will), transmitting the signal to the entire surface of the Mylar, which, in turn, vibrates to produce sound. As a point of comparison, in a traditional planar-magnetic panel the Mylar driver is not driven uniformly over its entire surface by a foil of aluminum as it is in a quasi-ribbon; instead, it is driven by a latticework of thick signal-conducting wires that are attached to the Mylar itself. The difference in the uniformity of drive and in the relative mass of the driver should be obvious.

Up until the 1.7, all Maggie speakers used a mix of ribbon (typically for high frequencies), quasi-ribbon (typically for high frequencies and upper mids), and planar-magnetic drivers (typically for the lower mids and the bass), which, as I just noted, made for variations in uniformity of drive, uniformity of dispersion, uniformity of moving mass, and uniformity of power-handling that could sometimes be heard as slight discontinuities in the overall presentation. This was particularly true of the transition between ribbon tweeter and quasi-ribbon or planar-magnetic panels, but also of the transition between quasi-ribbon and planar-magnetic panels.

What makes the 1.7 such a landmark—and a departure—is that every driver in it, from its super-tweeter panel to its tweeter/upper-mid panel to its lower-mid/bass panel—is a quasi-ribbon, making this the first Magneplanar to use ribbon technology in *all* of its drivers. The speaker’s crossover has also been carefully redone, as has its “enclosure” (the 1.7s use a stiffer aluminum-and-MDF frame rather than Maggie’s traditional all-wooden one). The result is a loudspeaker of superior “uniformity”—a speaker’s whose power-handling, dispersion, resolution, and overall presentation are more “of a piece” than *any* previous Maggie design. (This does not mean, BTW, that the 1.7 will outdo its bigger brothers in some critical areas. Maggie’s true ribbon tweeter, taken on its own, remains a superior transducer, and the considerably larger planar-magnetic mid/bass panels in the 3.6 and 20.1 simply produce “bigger,” fuller, deeper bass than the smaller quasi-ribbon bass panel in the 1.7.)

Frequency response of the 1.7 is said to range from 40Hz–24kHz (which the eagle-eyed among you will note is not all that different than the frequency response of the 1.6). Its sensitivity is rated at 86dB/500Hz/2.83V. Its impedance is 4 ohms. All of which means that, like the 1.6 and every other Maggie, the 1.7 will take some power to drive, although how much power depends on the size of your room, the kind of music you listen to, and the levels you are comfortable listening at. (In my medium-sized room I’d estimate 100Wpc minimum, making the tube-powered \$5995



ARC VS115 and Odyssey's \$995 solid-state Khartago excellent matches.)

At the start of the review period I drove the 1.7s with two of the most transparent solid-state amps I've heard—the \$115k Soultion 700s and the \$80k BALabo BP-1 Mk-II—coupled (via Tara Labs Zero and MIT Oracle MA-X) with the best preamps I've heard—the Audio Research Reference 5, Soultion 720, and BALabo BC-1 Mk-II, and the Audio Research Reference 2 Phono and Soultion 750 phonostages—and fed by the best sources I've heard—the Walker Proscenium Black Diamond Mk II record player with Da Vinci Grand Reference Grandezza Mk II cartridge and the “Level 5” United Home Audio TASCAM 15ips, two-track tape deck playing back fabulous second-generation mastertapes from The Tape Project. I realize that this is overkill, but let it be known that I could live happily with the 1.7s as my speakers in systems that are as ultra-high-end as these were. *That's* how good they are.

I'm going to begin with some general observations about how the 1.7s sound.

First, yes, the 1.7s are audibly and substantially more coherent than previous Maggies—more of a piece top-to-bottom than the 1.6s, the 3.6s, and the 20.1s.

Second, the addition of the super-tweeter has greatly improved the treble over that of the 1.6s—more air, more detail, more transient speed, more bloom. But, be aware that played *very* loudly (and I'm talking well above 100dB+ SPL peaks) that tweeter can turn bright in the upper mids as the panels reach the limits of their excursion. The quasi-ribbon bass is improved, too, in resolution and dynamics, although I wouldn't say it goes any deeper than that of the 1.6s (at least, not in my room)—solid, resonance-free, and remarkably finely detailed down into the mid-to-upper 40s. Do note that, like the tweeter, the bass panel can also be overdriven at very loud levels.

It's almost a paradox that Maggies and dipoles in general like to be played louder to sound their liveliest and most room-fillingly natural (although see the paragraph below for how the 1.7s have improved on this). The paradox is that if you play them *too* loud those panel-excursion limits I just mentioned tip them over into distortion. There is a sweet spot on the volume knob where the Maggies will sound their substantial best, particularly on large-scale music. This sweet spot is not hard to find; you can easily do it by ear. As soon as the treble starts to glare and stick out on trumpet blasts and the bass to dry up or to break up with a sound rather like that of dust on a phonograph needle on, say, a big bass-drum strike, you need to back the volume down. Don't worry. You'll still be able to play plenty loud—just not as loud as, oh, Nola Baby Grand References.

Third, as I just implied, the 1.7s will play loudly more eagerly than the 1.6s, although they still may not be the ideal stadium-rock speaker. More importantly from my point of view, they will also play more convincingly at

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low-to-moderate levels than the 1.6s (or any Maggie I've recently heard). Like their newfound overall coherence, this is a major departure from previous Maggies. While they sound progressively more room-fillingly realistic as you turn the volume up to a lifelike level, they do not sound anemic dynamically at lower volumes nor do they seem short of (or oversupplied with) bass or treble.

Fourth, they image better than any Maggie I've yet heard. I assume this may be a side-benefit of the uniformity of drive, dispersion, and power-handling of their all-quasi-ribbon complement of drivers (and it may have something to do with the addition of the separate super-tweeter, too). In any event, the "mouth-as-big-as-a-bass-drum" effect of many previous Maggies is...gone. While they still have lifelike image size (at lifelike volumes), the focus of the images is *vastly* improved—almost to the level of something like the point-source Magico M5, which is a paragon of imaging. Coupled with their speed, openness, and neutrality, this improved focus makes voices—always a strong suit of Maggies—just that much more "there."

Fifth, their soundstaging is simply the best I've heard from a planar dipole. With the right source (like The Tape Project's dub of Reference Recordings' *Arnold Overtures*—horrible music, great sound—or the superb Philips LP of Richard Rodney Bennett's terrific Piano Concerto), your jaw will drop when you hear the way these relatively demure panels fill the back third of your room with precisely layered, minutely detailed, incredibly deep, wall-busting wide sound.

Sixth, when it comes to enclosure colorations it goes without saying that a boxless planar like a Maggie has a leg up on most dynamic speakers. No boxes mean no box colorations. This almost guarantees a very good "disappearing act" and remarkable openness, "outside-the-box" imaging, and wall-to-wall soundstaging, and can (and in this case does) mean lower levels of the colorations that come from the resonances of a cabinet. (However, and we will come to this, box colorations aren't the only kind of colorations speakers are heir to.)

Seventh, the 1.7s are considerably higher in resolution at low, moderate, and high SPLs than the 1.6s, from top to bottom. Though I wouldn't say they are as transparent to sources or as finely detailed as, oh, the MartinLogan CLXes (nothing is) or the Magico M5s, they are nonetheless *very* finely detailed and transparent. Save in the bottom octave or octave-and-a-half, where they peter out, you aren't going to miss much if anything with these little numbers.

Eighth, they are exceptionally neutral in overall balance. Provided that you don't overdrive them, the 1.7s sound the same shade of neutral gray in the treble, the midrange, and the bass, and bring the same transient speed and dynamic range to every octave in which they play. No, they are not as colorless and transparent as the twelve-times-more-expensive CLX electrostats. Like all Maggies they have a slight touch of grain—an overlay of very-very-low-level sandiness that is distinctively Magnepan. You don't hear this grain so much on instruments or voices (well, you do, but it doesn't distract), as you do in the air of the hall or in the silences between notes. Somehow it makes that air and those silences seem more audible, more active, less acoustically inert—the way a bit of fine grit suspended in water makes its motion more visible. It may be a coloration but, to my ear, it can be a curiously lifelike one.

Ninth, the 1.7s are intoxicatingly realistic. There is something about Maggies that simply sounds like the real thing, particularly in the midrange, particularly on voices. Maggies aren't the only speakers that have this supreme gift (Magicos have it, too—in spades—and so do CLXes and so do Nola Baby Grand References). But some combination of neutrality, coherence, transient speed, image size, dispersion, dimensionality and bloom, and resolution of texture has always made Maggies sound more real than a large percentage of their competition. Here—with the right recordings, at the right levels—that realism (at least in the

### SPECS & PRICING

#### Magneplanar 1.7 Loudspeaker

**Type:** Three-way, full-range, quasi-ribbon, dipole loudspeaker

**Frequency response:** 40Hz-24kHz

**Sensitivity:** 86dB/500Hz/2.83V

**Impedance:** 4 ohms

**Dimensions:** 19" x 65" x 2"

**Weight:** 40 lbs. (each)

**Price:** \$1995

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#### JV'S REFERENCE SYSTEM

**Loudspeakers:** Magico M5, MartinLogan CLX

**Linestage preamps:** Audio Research Reference 5, Soudation 720, BAAlabo 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, Soudation 700, Lamm ML-2, BAAlabo 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, Benz LP S-MR

**Digital source:** dCS Scarlatti with U-Clock, Soudation 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, Winds Arm Load meter, Clearaudio Double Matrix record cleaner, HiFi-Tuning silver/gold fuses

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midband) is simply unmatched, in my experience, for a speaker at this price point or, really, for anything even remotely close to its price point.

What makes this last point even more compelling is the way these speakers hang together—combining all the plusses I've just enumerated—on very large-scale music. You expect these smaller full-range Maggies to shine on a Joan Baez ballad or a Bartók quartet or a Chopin mazurka (Maggies are simply great on piano, possibly, as Dick Olsher once brilliantly speculated, because their planar wavelaunch comes closer to the planar wavelaunch of an actual piano). What you don't expect—or, at least, I didn't—is what they can do with a full orchestra in full cry. Guests who came to audition the 1.7s—experienced listeners, including several illustrious manufacturers—almost swooned when they heard these little numbers playing back the Janáček Sinfonietta [Denon]. I've talked before about the huge brass choirs (and the thrilling brass anthems) in this piece, but, honestly, to hear these instruments spread past the far walls on your right, almost to the ceiling, the trumpets clearly elevated on risers, each instrument focused with “count-'em” clarity and singing out without any apparent dynamic compression (unless, of course, you push the panels too hard) and with superb definition of pitch, with as lifelike a timbre as any speaker I have in house, and with superb attack and decay is a thing of jaw-dropping wonder—and a thing that the 1.6s, for all their virtues, couldn't bring off nearly as well.

So what are this little gem's downsides? Well, I've mentioned some of them. The 1.7s can be overdriven if played too loud.

Although they have excellent definition in the bass and go deep enough to reproduce timp strikes with wall-shaking power (e.g., the Sinfonietta), they will not play much below 40Hz or so, which for some of you may mandate subwoofers (good luck on that, BTW). In addition, and as noted, they have a typical touch of Maggie's planar-magnetic grain. Since they are dipoles, they can be tricky to place (although, theoretically, their figure-eight radiation pattern eliminates the sidewall reflections that drive you nuts with wide-dispersion box speakers). And at five-feet-five-inches tall, they may be demure by full-range Maggie standards but they are considerably larger than many dynamic speakers and, consequently, tougher to fit into certain rooms. Then there is this: Planar dipole speakers, 'stat or ribbon, rather tend to foreshorten image depth or volume. Don't read this wrong. I don't mean stage or soundfield depth, at which the Maggie 1.7s are superb, and I don't mean perspectival (front-to-back, side-to-side) clarity, which is another Maggie strength. What I do mean is that the image of a voice or a violin coming off the 1.7s' screens can sound rather the way it would look if it were projected *onto* those screens. In other words, it can sound a bit flat and two-dimensional, particularly with solid-state electronics.

I talk about image volume in my ARC Reference 5 review (elsewhere in this issue), and it is not, inherently, one of the 1.7s' strengths. The funny thing here is that these slightly flattened, seemingly “projected” images don't want for natural richness of color or detail or power or even body, in the sense of natural tonal weight; they just don't seem as filled-out, as three-dimensional as voices and violins can sometimes sound with cone speakers. It's rather as if you are getting a slice off the front of the instrument instead of the whole enchilada.

There is a partial cure for this problem, however. Tubes. Particularly ARC tubes, which have always made such great matches with Magneplanars. I've tried both the mighty 610Ts and the not-so-mighty VS115 with the 1.7s, and I can highly recommend both. Do understand, however, that there will be minor trade-offs, particularly in low-end and top-treble grip, power, definition, and resolution, with tubes. To be honest, I tend to gravitate toward solid-state amps with planars for their superior control and drive, but that ARC sound is ravishing in its own right and will go a long way to supplying the third dimension that solid-state electronics lack.

Finally, a word or two about setup. Whether you have the 1.7s mounted in Mye Stands or on their own long, thin, flat feet, you will want to keep them as far away from sidewalls (yeah, I know) and backwalls as possible. You will also, and this is a difference necessitated by Maggie's new quasi-ribbon super-tweeter, want to toe them in so those tweeters are aimed roughly at your ears. Typically, Maggie dipoles are set up parallel to rear walls; the 1.7s sound better angled in. Of course, you'll want to make slight adjustments to toe-in, placement, and listening distance to suit your room and your ears. Be aware that the Maggies come as left/right pairs, and that switching left and right will switch the orientation of the super-tweeter. I prefer—and Magneplanar recommends—the tweeters to the inside.

Bottom line? I think you already know. Like the 1.6s, the 1.7s are the most lifelike speakers I've heard in their price range—or anywhere near it. I could live with them (and did) in a system that costs 150 times more than they themselves do. IMO, they're just plain great. **tas**

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