



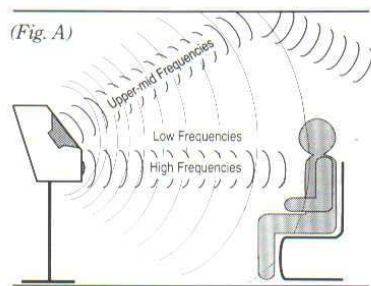
HOLOGRAPHIC IMAGING SERIES



THE TECHNOLOGY OF A NEW SOUND DESIGN.

WHAT IS HOLOGRAPHIC IMAGING?

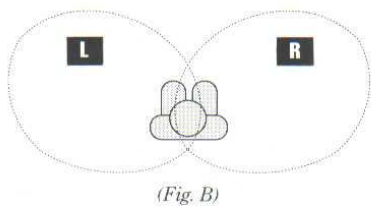
It's the vivid recreation of the sonic space on a recording and the exact positioning of instruments and singers within that space.



Think of these two pages as a narrative spec sheet — highlighting some of the concepts which have gone into developing this new mode of stereo enjoyment.

ANGLING THE WOOFER UPWARD.

This projects smooth, flat sound at the critical crossover point directly toward your ear and ample hall-simulating midrange reverberation throughout the reflected sound. (Fig. A)



WIDER IMAGING AREA.

Imaging is no longer appreciated just in the "sweet spot." The asymmetrical offset of the tweeter on its baffle improves imaging over a wider listening angle. (Fig. B)

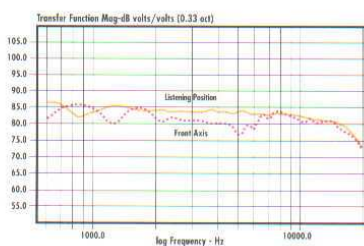


BETTER GEOMETRY = BETTER IMAGING.

Unique narrow cabinet baffle minimizes diffraction and reflection effects for superb stereo imaging. New low frequency design delivers more energy from a small cabinet and maximum performance in any location.

STRONG, PRECISE IMAGING.

Our ultrawide-dispersion, louvered $\frac{3}{4}$ " (19 mm) tweeters produce precision localization on axis, along with treble airiness throughout the room. It's the best of both worlds. Other speakers use beamy, 1-inch (25 mm) tweeters, on wider cabinet fronts, too. (Fig. C)



(Fig. D)

BETTER "REAL WORLD" FREQUENCY RESPONSE.

Here is actual frequency response measured in a real, typical living

room. Note its serious smoothness across the crucial, ear-sensitive midrange and upper midrange. This simply means better and more accurate sound. (Any speaker system's response below 500 Hz will vary from room to room and speaker location to speaker location.) (Fig. D)

SPECIFIC MATERIALS CHOSEN FOR BEST RESULTS IN EACH DRIVER APPLICATION.

Pulp paper cones are used where deep bass is required; rigid carbon-loaded polypropylene cones with minimal high frequency break-up are specified in some models to assure smooth midrange response. (Fig. E)



(Fig. E)

Due to the new and improved woofers, these speakers demonstrate effortless bass performance. Rubber roll surrounds ensure the greatest excursion possible for the cone, combined with very low resonance. The acoustic suspension system that AR invented then maximizes the bass performance from the compact cabinet.

DOMES TWEETERS FOCUS CENTRAL STAGE.

They project unconfined sound into the room rather than localizing it to the speakers. The result is a clear

central stage that's more enjoyable.

Several types of dome materials have been used, each making its own special contribution to the sound. All are soft-fiber or aluminum dome and ferrofluid-cooled for low resonance. (Fig. F)



(Fig. F)

WHEN IS A CABINET NOT JUST A CABINET?

When it's actually a performance component. These striking cabinet shapes are unusually rigid and strong, minimizing "panel talk."



(Fig. G)

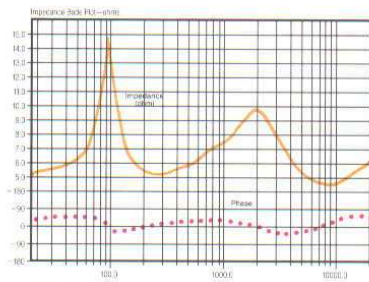
Non-parallel cabinet walls reduce internal standing waves that affect cone motion. So the loss of musical detail is minimized. (Fig. G)

FEWER, BETTER CROSSOVERS.

H/I crossovers are of minimalist design to reduce power loss and ensure the smoothest sound.

HOLOGRAPHIC IMAGING SPEAKERS ARE EASY TO DRIVE.

Some recent amp designs balk with speakers of less than 6 or 8 ohms impedance. But it's not usually the nominal impedance number—it's the complexity of that impedance. That's no problem with H/I speakers. They're easy to drive regardless of their rated impedance number. (Fig. H)



(Fig. H)

HIGH-Q, LOW-Q ARRANGEMENT.

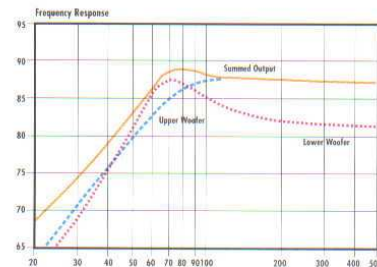
(Fig. I) In Model 4 the upper woofer and the higher-Q (low resonance) lower woofer combine coverage for powerful, deep output. The graph shows their excellent summed output. (Fig. J)

- 6" Polypropylene woofer
- Twin acoustic suspension cabinet
- 6" Heavy-paper cone, high Q woofer



(Fig. I)

Biamping capability on Models 4, 5 and 6 means cleaner playback with more power available for the potent bass and midbass.



(Fig. J)

HIDDEN WOOFER SYSTEM HAS SLIM PROFILE, ASTOUNDING BASS.

(Fig. K) Superior deep bass from a smaller enclosure—that's been

AR's driving philosophy for four decades. In the H/I Series, the handsome enclosure means a smaller footprint in your living room, too.



(Fig. K)

And with filtered acoustic suspension, we get increased efficiency for the digital era. The control of a sealed woofer side with the sensitivity of the vented side is the best of both worlds. Dual vents at different spacings, furthermore, blend smoothly for accurate bass reproduction.



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HOLOGRAPHIC IMAGING A WHOLE NEW SLANT ON A NEW DIMENSION IN STEREO



THE M1*



THE M2*

It's startling. Because you're used to speakers that merely flood a room with ambience. Or you're used to imaging that's pretty much been left, right and center. So when you hear the H/I Series speakers for the first time, you hear the nearly three dimensional effect of imaging and ambience combined and projected into the room. You hear music recreated in its proper position. And your expectations will be much higher from that moment on.

**Speaker Stands optional extra.*

SERIES: MUSIC- ENJOYMENT.



THE M3*

THINK OF IT AS A MUSICAL HOLOGRAM.

And you're right in the middle of it. Imaging is actually 10-15% more focused than conventional speakers, so you can pinpoint instruments with striking accuracy. We've combined that improvement with a more spacious, natural musical ambience that envelops you in what we call the Spatial Sound Stage.

For instance, our small diameter dome tweeters cover a wider angle that gives you a livelier performance. Listen to cymbal crashes...brushwork...guitar transients...string sections...female vocals. Electrifying.

Woofer configurations on the other hand are all different to give you optimum, accurate bass in each model, without distortion.

But from bookshelf model to tower, each sleek, uncompromising design projects a stereo performance unlike anything you've heard before.

ALL RIGHT, WHAT'S THE ANGLE?

While the look is certainly distinctive, in this case form really does follow function. The speakers look like they're leaning back because this design allows us to throw the music into the room with more precision so more people can enjoy it. The tilt effect minimizes sound diffraction and reflection for better stereo imaging and ambience.

All Holographic Imaging Speakers are designated left and right.

Models 1 and 2 could be considered "bookshelf" —used upright or on their sides—or on speaker stands. Ideal for apartments or smaller rooms. In both models, the acoustic suspension woofer (6" and 8" respectively) is on top—angled precisely to loft into the room for smooth, natural response without smudgy rolloff. The wide-dispersion tweeter sits below on an angled baffle for more focused imaging in a broader area.



AC
RE



THE M4



THE M5

Model 3 adds a 2½" midrange to the 8" woofer and low resonance tweeter. Phenomenal sound from a mid-sized speaker system, this is our most versatile design for room settings. Comes standard with floor spikes, increasing imaging stability.

Model 4 will exhilarate you with two 6" acoustic suspension woofers in addition to a ¾" tweeter. The second woofer is a high-Q, low-resonance system hidden below that fires up from its own sealed enclosure to blend with the other woofer for potent, deep bass.

Now stand back. Model 5 features one 8" woofer and Model 6 features two 8" woofers. They're hiding below the head unit, mounted on an interior center panel. (See the cutaway drawing on the overleaf.) They fire into a sealed chamber to integrate flawlessly with the



THE M6

midrange which is angled at the top. The tweeter sits between the midrange and woofers. Models 5 and 6 come standard with floor spikes. Other finish options are available—see your dealer.

AR CAN BREAK THE RULES BECAUSE WE MADE THE RULES.

You know our reputation for innovations. Four decades worth that have brought stereo to where it is today. Or should we say to where it was yesterday? Because today the Holographic Imaging Speaker takes us beyond conventional “stereo-filled” rooms. Beyond mere “sweet spots.”

To a wider area of clear, focused imaging than ever before. Wrapped in an ambience that swirls around you. For stereo enjoyment even we never imagined.

Listen.

Holographic Imaging™ Specifications

M1	M2	M3	M4	M5	M6
Type and Driver Complement					
<p>Dynamic two-way. One 3/4" (19 mm) ferrofluid-cooled, ultrawide-dispersion, low-resonance soft fiber dome tweeter (1.6 kHz free-air resonance); lowered disperser grille</p> <p>One 6" (165 mm) carbon/mica-filled polypropylene cone with natural-rubber surround; free-air resonance of 32 Hz</p> <p>Acoustic suspension, high-style enclosure</p>	<p>Dynamic two-way. One 3/4" (19 mm) ferrofluid-cooled, ultrawide-dispersion, low-resonance soft fiber dome tweeter (1.6 kHz free-air resonance); lowered disperser grille</p> <p>One 8" (210 mm) carbon/mica-filled polypropylene cone with natural-rubber surround; free-air resonance of 26 Hz</p> <p>Acoustic suspension, high-style enclosure</p>	<p>Dynamic three-way. One 1/2" ferrofluid-cooled, ultrawide-dispersion, low-resonance polydome tweeter (3.2 kHz free-air resonance); lowered disperser grille</p> <p>One 2.5" (60 mm) polycone midrange</p> <p>One 8" (210 mm) carbon/mica-filled polypropylene cone woofer with four-layer voice coil and natural-rubber surround; free-air resonance of 26 Hz</p> <p>Acoustic suspension, high-style enclosure</p>	<p>Dynamic three-way. One 3/4" (19 mm) ferrofluid-cooled, ultrawide-dispersion, low-resonance soft fiber dome tweeter (1.6 kHz free-air resonance); lowered disperser grille</p> <p>One 6" (165 mm) carbon/mica-filled polypropylene cone woofer with natural rubber surround; free-air resonance of 32 Hz</p> <p>Second 6" (165 mm) heavy-paper cone woofer is a high-Q, low-resonance heavy-moving-mass system in inversely mounted, lower-distortion acoustic-suspension topology for superior power handling; free-air resonance of 28 Hz</p> <p>Acoustic suspension, high-style enclosure</p>	<p>Dynamic three-way, biampable. One 3/4" (19 mm) ferrofluid-cooled, ultrawide-dispersion, low-resonance cavity-loaded (hollow pole piece for lower resonance and lower distortion) aluminum-dome tweeter (1.3 kHz free-air resonance); lowered disperser grille</p> <p>One 5" (130 mm) very long-throw carbon/mica-filled polypropylene cone midrange with natural-rubber surround</p> <p>One 8" (210 mm) heavy-paper cone woofer in a bandpass, filtered-acoustic-suspension topology, with one loading side sealed and the other a resonance chamber with tuned, double-Q overlapping vents. Driver pole piece is also vented for increased power handling and minimal sonic compression, and is undercut for a focused magnetic field and greatly reduced distortion</p>	<p>Dynamic three-way, biampable. One 3/4" (19 mm) ferrofluid-cooled, ultrawide-dispersion, low-resonance cavity-loaded (hollow pole piece for lower resonance and lower distortion) aluminum-dome tweeter (1.3 kHz free-air resonance); lowered disperser grille</p> <p>One 5" (130 mm) very long-throw carbon/mica-filled polypropylene cone midrange with natural-rubber surround</p> <p>Two 8" (210 mm) heavy-paper cone woofers in a bandpass, filtered-acoustic-suspension topology, with one loading side sealed and the other a resonance chamber with tuned, double-Q overlapping vents. Driver pole piece is also vented for increased power handling and minimal sonic compression, and is undercut for a focused magnetic field and greatly reduced distortion</p>
Crossovers					
<p>3.6 kHz, 12 dB/octave highpass into tweeter (tweeter range begins >1 octave above resonance, for greater power handling and lower distortion), employing mylar (film) capacitors; woofer is self-lowpassed (i.e., natural rolloff)</p> <p>Optimum-phase driver overlap and baffle offsets</p>	<p>3.6 kHz, 12 dB/octave highpass into tweeter (tweeter range begins >1 octave above resonance, for greater power handling and lower distortion), employing mylar (film) capacitors; woofer is self-lowpassed (i.e., natural rolloff)</p> <p>Optimum-phase driver overlap and baffle offsets</p>	<p>1.2 kHz, 18 dB/Octave highpass into midrange</p> <p>7 kHz, 12 dB/octave highpass into tweeter, with mylar capacitors</p> <p>Optimum-phase driver overlap and baffle offsets</p>	<p>3.6 kHz, 12 dB/octave highpass into tweeter (tweeter range begins >1 octave above resonance, for greater power handling and lower distortion), employing mylar (film) capacitors; upper woofer is self-lowpassed (i.e., natural rolloff); lower woofer is lowpassed at 100 Hz with a high-current iron-laminate-core inductor</p> <p>Optimum-phase driver overlap and baffle offsets</p>	<p>3.4 kHz, 12 dB/octave highpass into tweeter (>1 octave above resonance), employing mylar capacitors; 150 Hz bandpass plus 6 dB/octave highpass via a high-current capacitor; inductor added for impedance matching</p> <p>Optimum-phase driver overlap and baffle offsets</p>	<p>3.4 kHz, 12 dB/octave highpass into tweeter (>1 octave above resonance), employing mylar capacitors; 150 Hz bandpass plus 6 dB/octave highpass via a high-current capacitor, plus inductor for impedance matching</p> <p>Optimum-phase driver overlap and baffle offsets</p>
Frequency Response					
65 Hz-20 kHz - 3 dB anechoic axis response	58 Hz-20 kHz - 3 dB anechoic axis response	53 Hz-20 kHz - 3 dB anechoic axis response	50 Hz-20 kHz - 3 dB anechoic axis response	48 Hz-20 kHz - 3 dB anechoic axis response	42 Hz-20 kHz - 3 dB anechoic axis response
Sensitivity					
88 dB SPL at 1 m for 2.83 V input	90 dB SPL at 1 m for 2.83 V input	90 dB SPL at 1 m for 2.83 V input	88 dB SPL at 1 m for 2.83 V input	90 dB SPL at 1 m for 2.83 V input	90 dB SPL at 1 m for 2.83 V input
Recommended Amplifier Requirements					
Amplifiers rated for 4-8 ohms impedance/Power output 10-100 watts	Amplifiers rated for 4-8 ohms impedance/Power output 10-125 watts	Amplifiers rated for 4-8 ohms impedance/Power output 20-125 watts	Amplifiers rated for 4-8 ohms impedance/Power output 20-150 watts	Amplifiers rated for 4-8 ohms impedance/Power output 20-175 watts	Amplifiers rated for 4-8 ohms impedance/Power output 20-200 watts
Finish					
Charcoal-gray vinyl wrap around MDF	Charcoal-gray vinyl wrap around MDF	Charcoal-gray vinyl wrap around MDF	Charcoal-gray vinyl wrap around MDF	System is available in grey suede paint, white, or black. Bass cabinet is available in grey suede paint, white gloss, black gloss, or veneer	System is available in grey suede paint, white, or black. Bass cabinet is available in grey suede paint, white gloss, black gloss, or veneer
Dimensions					
H 10 5/8" (270 mm) W 7 3/4" (197 mm) D 11 1/4" (286 mm) Footprint: 7 3/4" (197 mm) x 8 1/4" (210 mm)	H 16 1/4" (413 mm) W 9 1/4" (235 mm) D 14" (356 mm) Footprint: 9 1/4" (235 mm) x 9 5/8" (244 mm)	H 21 1/2" (546 mm) W 9 1/4" (235 mm) D 15 3/4" (400 mm) Footprint: 9 1/4" (235 mm) x 10 3/4" (273 mm)	H 28 1/8" (714 mm) W 7 3/4" (197 mm) D 15 1/4" (387 mm) Footprint: 7 3/4" (197 mm) x 10 1/8" (257 mm)	H 36" (914 mm) W 8 1/2" (216 mm) D 10 1/2" (267 mm)	H 42" (1067 mm) W 8 1/2" (216 mm) D 10 1/2" (267 mm)
Weight					
Shipping Weight/Pair: 24 lbs./11 kg.	Shipping Weight/Pair: 37 lbs./17 kg.	Shipping Weight/Pair: 47 lbs./21.5 kg.	Shipping Weight/Pair: 53 lbs./24 kg.	Shipping Weight/Pair: 75 lbs./34 kg.	Shipping Weight/Pair: 84 lbs./38 kg.

Note: Since it is the policy of Acoustic Research to continuously incorporate engineering improvements into its products, all specifications are subject to change without notice.
The AR WARRANTY: A lot of loudspeaker manufacturers guarantee their systems against defects in parts and workmanship. So does Acoustic Research. But we do something that few other companies do. We guarantee our speaker performances within ± 1 dB of their design specifications, for a full five years from the date of purchase.