

SATURDAY REVIEW (R. D. Darrell's report on the 1954 N. Y. Audio Fair)

"... Villchur's extraordinary 'little box' introduced by Acoustic Research..."

THE AUDIO LEAGUE REPORT (audio consumer periodical, Pleasantville, N. Y.)

"This newly formed company... demonstrated what we consider to be one of the most important loudspeaker developments in years—a compact, not inexpensive (\$185) speaker system which is represented as comparable to any system regardless of price or size.

"Frankly, we snickered inwardly on first seeing the AR-1. ('Oh, another one of those bookshelf things, etc., etc.')

A few minutes listening wiped the smirk off our countenances. To our audible judgment, the system appears to live up to its claimed performance.

"Pedal organ notes were reproduced with room-shaking effect. Most outstanding was its cleanness—obviously low distortion—with a variety of program material..."

THE CHRISTIAN SCIENCE MONITOR (Robert C. Cowen on science page)

"This is a story of 'woofers' and 'tweeters', of an infinite space folded into a 1.7 cubic foot box, and of a growing revolution in engineering design... this little box can shake the walls and rattle the windows with the undistorted tones of the lowest note on an organ."

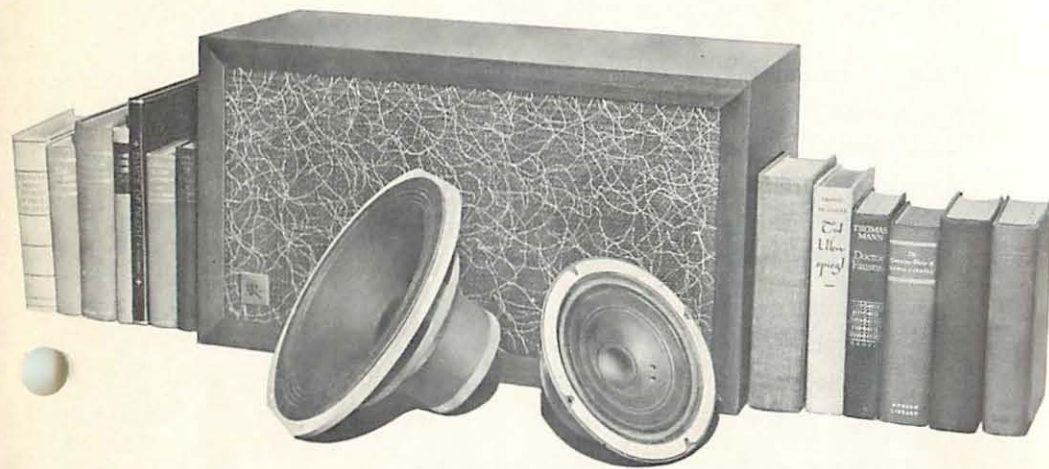
THE BOSTON POST (Ben Drisko in "Hi Fi Notes")

"So the Acoustic Research boys figured out that if you increase the compliance like crazy and put the speaker in a tight box and let the compressibility of the air make up for the stiffness you threw away, you ought to cure most of these non-linear troubles of the conventional speaker. They did and it did..."

"The AR-1 speaker definitely establishes a new high in direct radiator woof performance..."

Reprints of the article "Revolutionary Loudspeaker and Enclosure", from the *Oct., 1954 AUDIO* available on request.

ACOUSTIC RESEARCH, INC. • 23 Mt. Auburn St. • Cambridge 38, Mass.



the AR-1 SPEAKER SYSTEM

A REVOLUTION IN ENGINEERING ACOUSTICS

THE ACOUSTIC SUSPENSION PRINCIPLE

If you have ever handled a conventional loud-speaker you will know that the moving system is mounted on elastic suspensions: when you depress and then release the cone it springs back to its normal position.

The necessarily imperfect quality of these mechanical springs (which, in technical language, become non-linear on large excursions) is the greatest single source of speaker distortion. The condition cannot be cured by removing the spring tension from the suspensions, because elastic restoring force is indispensable in modern speaker design.

Acoustic Research has replaced the mechanical spring of the bass speaker suspensions with a pneumatic spring of near-perfect characteristics—the sealed-in air of the cabinet. The practical results of this fundamentally new approach to speaker design are:

1. Reduction of bass harmonic distortion, compared to that of an equivalent speaker of conventional design mounted in an infinite baffle, by a factor of 4.
2. Uniform and extended low frequency response, slightly better than that of an equivalent infinite baffle installation.
3. Exact determination of the necessary cabinet size, which turns out, as an extra dividend, to be conveniently small.

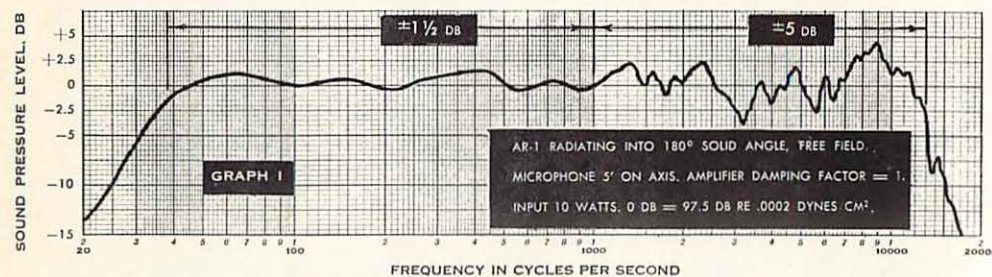
The size of the AR-1 speaker cabinet is dictated by acoustical considerations, and represents an advance in, rather than a compromise with quality. No allowances for size or price should be made in evaluating the performance of the system.

TECHNICAL DATA

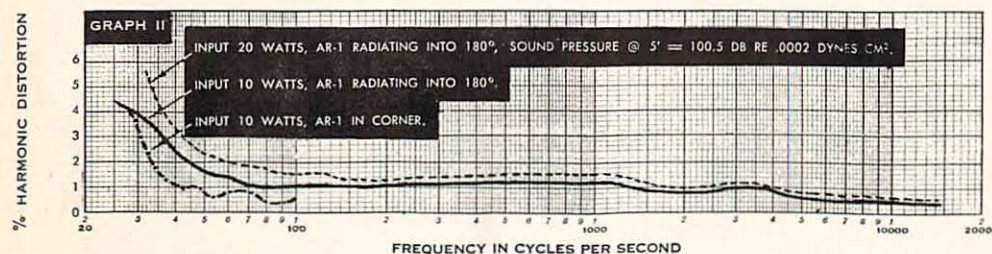
The Acoustic Research AR-1 speaker system consists of an acoustic suspension 12-inch low-frequency mechanism* and an 8-inch mid-and-high frequency unit, mounted in a sealed, Fiberglas-filled cabinet of braced 3/4-inch hardwood veneer. The "woofer" system is also available separately. Dimensions are 14" x 11 3/8" x 25".

<i>Woofer magnetic circuit</i>	3.3 lbs. Alnico 5 6 lbs. Armco iron	<i>Amplifier power requirements</i>	10 watts for moderately high level in average room. 30 watts for high levels and large rooms.
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<i>Woofer resonance, unmounted</i>	Subsonic	<i>System bass resonance</i>	43 cps \pm 1 cps
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The uniformity and range of Graph I means full fundamentals from organ pedal pipes or the bass viol, the natural sound of strings and brass, and natural speech, without boominess or stridency.



So far as we know Graph II sets a new low-distortion standard in published speaker data. It means "clean" sound.

*Pat. applied for by E. M. Villchur

ACOUSTIC RESEARCH, INC.

23 Mt. Auburn Street - Cambridge 38, Mass. - Tel. ELiot 4-1442

PRICES FOR ACOUSTIC SUSPENSION SPEAKER SYSTEMS

MODEL	DESCRIPTION	PRICE
AR-1	Two-way system in finished cabinet.	\$185.00
AR-1W	Woofers only in finished cabinet.	\$145.00

- Models AR-1 and AR-1W are in traditional mahogany or select white birch. We will be glad to quote on special woods and finishes.

AR-1U	Two-way system in unfinished cabinet.	\$172.00
AR-1WU	Woofers only in unfinished cabinet.	\$132.00

- Models AR-1U and AR-1WU are in sanded clear fir plywood.
- Cabinets to custom dimensions available for models AR-1W and AR-1WU only.
- One year warranty on workmanship and materials.
- Prices west of Rocky Mountains 5% higher.

Name of Nearest Dealer Furnished on Request.

Prices effective - 12-1-54

Names of Manufacturer Designated furnished on Request

- 2nd highest
- Finest wood of Rockwell Mountaineer and materials
- One year warranty on workmanship

only

- Available for models AR-1W and AR-1WU
- Cabinets to custom dimensions available
- One year warranty on workmanship
- Models AR-1U and AR-1WU are in standard clear or black

AR-1WU Woodier only in unfinished cabinet \$135.00

AR-1U Two-way system in unfinished cabinet \$125.00

special woods and finishes

- finish. We will be glad to quote on optional materials or select white
- Models AR-1 and AR-1W are in two-

AR-1W Woodier only in finished cabinet \$145.00

AR-1 Two-way system in finished cabinet \$135.00

MODEL DESCRIPTION PRICE

PRICES FOR ACOUSTIC SUSPENSION SPEAKER SYSTEMS

23 Mt. Vernon Street - Cambridge 18 Mass. - Tel. ELiot 4-1445
ACOUSTIC RESEARCH, INC.