

## AR-11 loudspeaker system



The AR-11 is the most accurate speaker system ever made by Acoustic Research. Its performance, drivers, and crossover are identical to those of the AR-10 $\pi$ , except that the AR-11 does not incorporate a Woofer Environmental Control and the associated crossover components. The AR-11 is designed for optimum performance when placed against a wall, as on a bookshelf, or slightly away from two room surfaces, as illustrated.

The AR-11 uses a substantially improved version of the 305 mm (12 in) woofer with which Acoustic Research introduced the acoustic suspension principle to home listeners, as well as the hemispherical dome

midrange of the AR-3a. It also uses a newly designed 19 mm ( $\frac{3}{4}$  in) highrange based on the original high-frequency dome radiator introduced by Acoustic Research in 1959. This high-range driver incorporates new diaphragm materials, voice coil, and construction techniques that have produced significant improvements in performance over earlier versions. It has a lower resonance frequency and more extended high-frequency response, plus greater efficiency and higher available output.

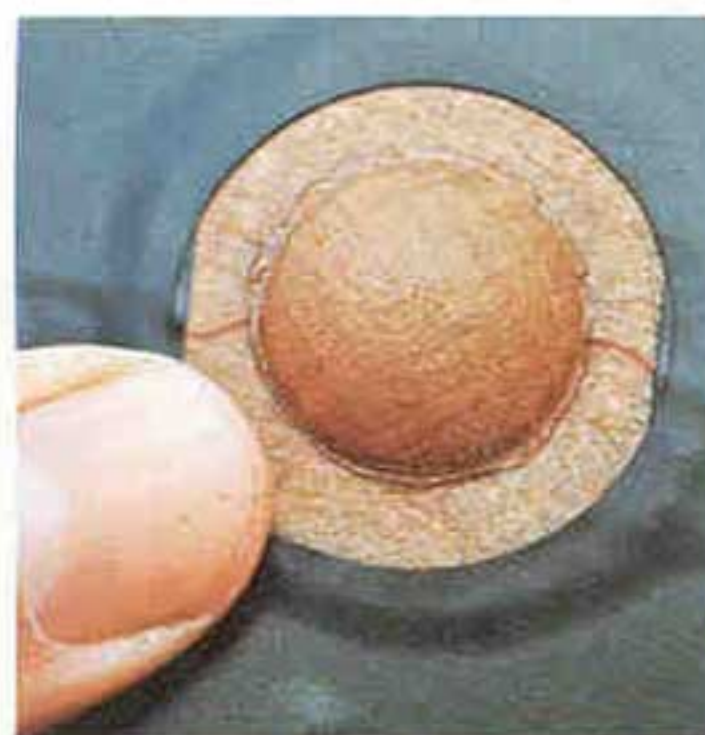
These drivers are used with a new crossover network to produce a speaker system with

uniformly dispersed flat energy output to the highest audible frequencies. It is able to transmit the information from a program source to listeners in most locations in a room with an unprecedented degree of accuracy.

A pair of three-position switches provide a means of decreasing the overall level of the midrange and highrange drivers in 3dB steps. The '0' position of the switches should provide the most accurate results in most listening rooms, while the '-3dB' and '-6dB' settings are useful for compensating for the effects of more reverberant, or 'live', rooms.

The AR-11 shares many of the appearance features of the AR-10 $\pi$ , including an easily removable precision-machined foam grill, which was chosen for its near-perfect acoustical transparency.





The new highrange used in the AR-11 measures 19 mm ( $\frac{3}{4}$  in) across its dome and preserves very nearly optimum dispersion up to the highest audible frequencies.

#### Specifications

**Drive units:** 305 mm (12 in) acoustic suspension woofer, 38 mm ( $1\frac{1}{2}$  in) hemispherical dome midrange, 19 mm ( $\frac{3}{4}$  in) hemispherical dome highrange  
**Crossover frequencies:** 525 Hz, 5000Hz  
**Impedance:** 4 ohms nominal  
**Controls:** Two 3-position switches for midrange and highrange level control  
**Efficiency:** 1 watt will produce 86dB SPL on axis at 1 meter  
**Amplifier power requirement:** Minimum 25 watts per channel for an average room; to obtain a closer approximation of the minimum power required, in continuous ('RMS') watts per channel for the realistic reproduction of musical sound levels in a particular room, divide the

volume of the listening room, measured in cubic feet, by 100; 25 watts (into one speaker only) will produce 100dB SPL in a 3000 cu ft room of average reflectivity (energy absorption coefficient of 0.15); 50 watts (25 watts per channel) will produce 103dB SPL in the same room

**Power-handling ability:** May be used with amplifiers capable of delivering up to 150 watts continuous power per channel being driven to clipping 10 percent of the time, on normal music source material

**Crossover network:** Half-section LC network on each driver using air-core chokes and computer grade electrolytic capacitors; acoustic output of midrange and highrange

drivers is controlled by switchable resistive networks

**Driver resonance frequencies:** Woofer 18Hz (free air), midrange 400Hz, highrange 2000Hz

**System resonance frequency:** 42Hz

**Effective system Q:** 0.7

**Total flux:** Woofer 200,000 maxwells, midrange 70,000 maxwells, highrange 21,000 maxwells

**Flux density:** Woofer 9,800 gauss, midrange 13,000 gauss, highrange 14,000 gauss

**Volume of enclosure:** 41.9 liters (1.48 cu ft)

**Cabinet dimensions:** 354 x 635 x 273 mm deep ( $13\frac{1}{8}$  x 25 x 10  $\frac{3}{4}$  in)

**Weight:** Packed in carton 24.9 kg (55 lb), unpacked 22.6 kg (49  $\frac{1}{4}$  lb)

**Guarantee:** The workmanship and performance in normal use of the AR-11 are guaranteed for five years from the date of purchase. This guarantee covers parts, repair labor, and freight costs to and from the factory or nearest authorized service station. New packaging if needed is also free. The guarantee is valid worldwide.