

DESCRIPTION

Heralding a new era in loudspeaker system design, the E-V FOUR•A offers performance never before found in a system of modest cost and size. The precise performance of a twelve-inch woofer, six-inch mid-range speaker, and two and one-half inch tweeter are blended smoothly into an integrated whole. No portion of the spectrum is emphasized or left out. The clean, balanced sound of the E-V FOUR•A brings the depth and vibrancy of a live musical performance into your home.

The foundation of any system's performance is the woofer. Traditionally, woofers have been designed by building and rebuilding laboratory samples to fit system requirements. However, in the case of acoustic suspension systems, only slight variations in woofer parameters can make a substantial change in system performance. To refine the design procedure, Electro-Voice engineers employed the speed, accuracy, and flexibility of a scientific computer. A mathematical program in the computer simulated woofer performance. A set of design variables fed into the computer predicted the performance of that woofer within seconds. Many subtle variations were tried quickly with accurate results. Once the optimum woofer design was reached, physical models were built in the laboratory to verify performance. Far more important than reducing design time, this exclusive Electro-Voice technique assures you the best possible bass performance in the E-V FOUR•A.

Innovations are to be found in the woofer materials and production techniques as well. A new sealed foam half-roll surround provides stable suspension of the cone and yet allows linear cone movement of three-fourths inch peak-to-peak. "Deep Dish" cone geometry keeps distortion low by reducing cone break-up. A 10-pound magnet structure provides the highest efficiency consistent with precise transient response.

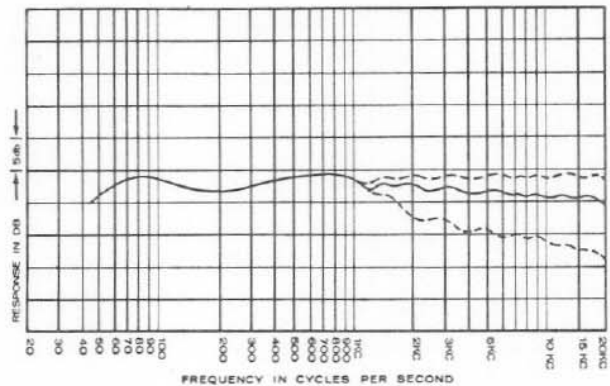


Figure 1 - Representative frequency response and range of balance control action.

Mid-range performance is no less important than bass performance. Because the ear is most sensitive to mid-range sound, any flaws in performance in this area are disturbing. Specially selected and treated cone and suspension ensure smoothness and low distortion throughout the range of 400 to 2500 Hz. Speaker resonance is nearly an octave below the first crossover point, further reducing the possibility of response variation. The mid-range speaker is mounted in an internally-damped, sealed enclosure to prevent interaction with the woofer.

Brilliant high-frequency response is assured by a new tweeter incorporating several design innovations. While basically a cone tweeter, it has a specially selected dust dome mounted centrally on the cone. In the lower portion of its frequency range the tweeter cone and dome function together with full efficiency. As frequency increases, a progressively smaller area of the cone radiates sound. At the highest frequencies, only the dome is radiating. Thus maximum dispersion is maintained at all frequencies without sacrificing efficiency. Resonant frequency of the tweeter is just below the crossover point for rapid rolloff. In addition, viscous damping compound is injected between the voice coil form and magnetic structure. This semi-liquid material controls cone movement at resonance and eliminates spurious responses and breakup.

Carefully matched to the driver components and constructed of fine selected hardwood veneers, the E-V FOUR•A enclosure is an outstanding combination of fine furniture design and acoustical excellence. Heavy, vibration-free three-fourths-inch panels and cross-bracing give the E-V FOUR•A enclosure unusual rigidity. The cabinet is finished on four sides to allow use in either vertical or horizontal position. The nameplate may be rotated for vertical placement.

SPECIFICATIONS

Frequency Response:	30 to 20,000 Hz
Nominal Impedance:	8 ohms
Power Handling Capacity	
Program:	35 watts
Peak:	70 watts
Dimensions:	14" H x 25" W x 13" D
Finish:	Oiled Walnut veneer
Shipping Weight:	55 pounds

PLACEMENT

The E-V FOUR•A may be placed on a table, shelf, or on the floor. Generally the most realism will be obtained if its height from the floor is near the listener's ear level. The E-V FOUR•A performs equally well placed in a horizontal or vertical position.

The above comments apply also to stereophonic placement. Additionally, however, the two systems should be far enough apart to permit listeners to sit at the apex of a thirty- to forty-degree angle, as illustrated. A distance of six to eight feet between stereo speakers will, in most rooms, provide natural separation. Placing the loudspeakers too close together or listening at too great a distance will destroy the stereo effect, and the sound heard by the listener will be essentially monophonic. Extreme spacing between speakers or listening at too short a distance will produce exaggerated and unreal separation. In long rooms, the loudspeakers should be placed along one of the short walls facing into the long room dimension. This improves bass reproduction and provides good stereo listening over most of the room.

AMPLIFIER CONNECTIONS

The E-V FOUR•A has a nominal impedance of eight ohms. Connections should be made between the left terminal (T1) and the amplifier 8-ohm terminal; the right terminal (T2) should be connected to the amplifier "common" terminal (sometimes referred to as "O" or "C"). Connections should be made with No. 18 or larger wire; common zip- or lamp-cord is quite satisfactory. If the speaker leads are to be run behind a molding strip or under a carpet, TV twin lead should be used.

ADJUSTMENT OF BALANCE CONTROLS

The E-V FOUR•A is equipped with continuously-variable balance controls to adjust mid-range and high-frequency response of the system to varying acoustical environments. The "normal" position, indicated on the controls, should be correct in most instances. Acoustically "hard" or "live" rooms may require a retarded setting of the "Hi" control to compensate for the greater amount of high-frequency reflection. In "soft" or "dead" rooms

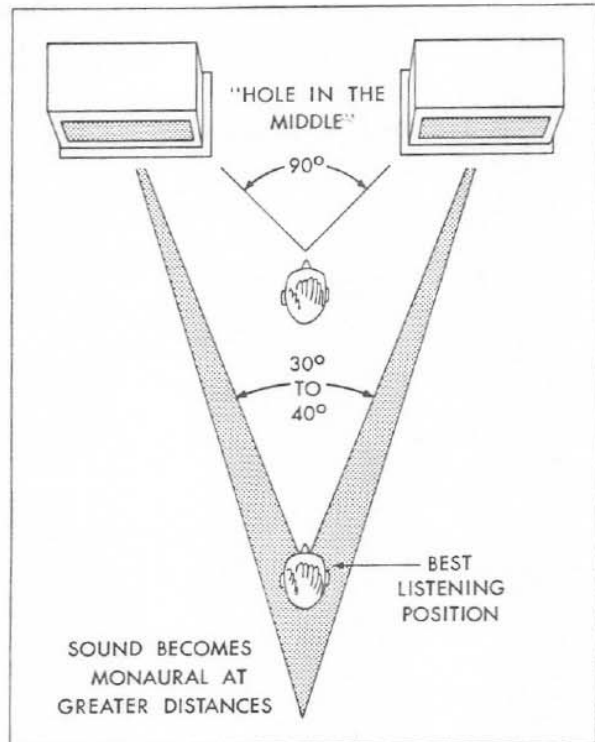


Figure 2 - Placement for stereo

with carpeting, soft furniture, and draperies, an advanced setting of the "Hi" control will normally be required. The best guide to setting the control properly is a familiarity with the sound of live music. That position of the controls which provides the musical balance most pleasing to you is correct.

CUSTOMER SERVICE

Your E-V FOUR•A system has been packed to provide protection well in excess of shipping requirements of the Interstate Commerce Commission. If shipping damage occurs, contact the dealer from whom the unit was purchased or the carrier and request inspection and further instructions.

WARRANTY

Your E-V FOUR•A is guaranteed indefinitely against defects in original materials and workmanship. If it becomes damaged or develops faulty operation from unusual conditions of use, write to the Electro-Voice Service Department. Be sure to mention the make and model number of the other components used in your system, as well as the nature of the trouble.