

KLH MODEL NINE

Stereophonic Full-Range Electrostatic Loudspeaker

THE KLH Model Nine is a stereophonic electrostatic loudspeaker system consisting of two complete full-range loudspeaker assemblies with built-in power supplies and step-up transformers.

In most products, we have concentrated on achieving a higher level of performance for a given cost than was previously available, placing equal emphasis on improving performance and lowering the cost to the listener. In the Model Nine, our objective has been to produce the finest sound reproducer possible — without regard for cost or the limitations of program material or associated equipment.

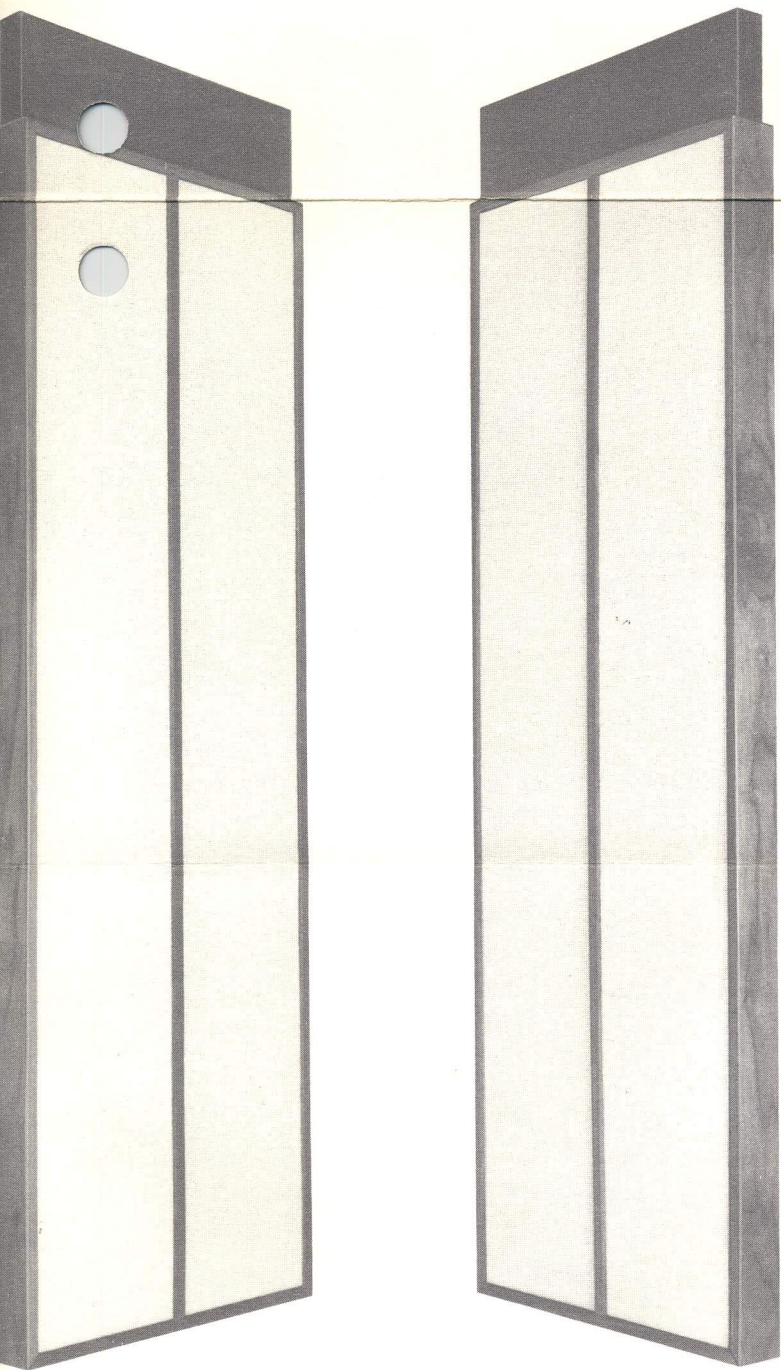
The electrostatic principle employed in the Model Nine stands in sharp contrast to other basic loudspeaker designs. All loudspeakers have the two-fold objective of moving enough air for adequate sound levels and of doing so with as much accuracy as possible. Most designs, including the deservedly popular moving-coil speaker, begin with the creation of adequate sound pressure; they must then be carefully elaborated to achieve accuracy. The push-pull electrostatic speaker, on the other hand, begins as a highly *accurate* design for reproducing sound; it must be carefully, and expensively, elaborated to move enough air across the frequency range to achieve satisfactory sound levels in a living room.

The accuracy of the push-pull electrostatic design of the Model Nine is based on its unique precision of diaphragm motion. The speaker's virtually weightless diaphragm is suspended between two charged plates that alternately attract and repel the diaphragm according to the polarity of the audio signal applied to the plates. The force pushing the diaphragm from one side is always directly proportional to the force pulling it from the other, and is uniform along the entire surface of the diaphragm. The combination of accurate motion and the lack of mass and inertia in the diaphragm provides a precision unapproached by other basic loudspeaker designs.

Because the electrostatic diaphragm can preserve its accuracy of motion only over a short distance of excursion, it must be increased in area to provide adequate sound pressure over the full range of frequencies. The two electrostatic assemblies of the Model Nine provide a total radiating area of 28 square feet (14 in front and 14 in the rear). A systematic reduction in area occurs automatically at higher frequencies to preserve appropriate directivity at each frequency.

In addition to precision of diaphragm motion, the Model Nine's distinctive sound is also a function of the unique spatial effect of its large radiating area and of its equal radiation to front and rear. The front-and-rear dipole sound radiation of the Model Nine not only heightens its unique spatial effect, but also frees the speaker—to a greater degree than any other design—from the usual limits of room acoustics. Stereo as well as monaural reproduction is distributed more evenly, and standing waves and other acoustic problems are largely overcome. The overall effect is like that of no other type of loudspeaker.

In return for its unique sound quality, the Model Nine presents definite limitations which are well worth understanding. It requires the highest quality



2 7/8"

23 1/2"

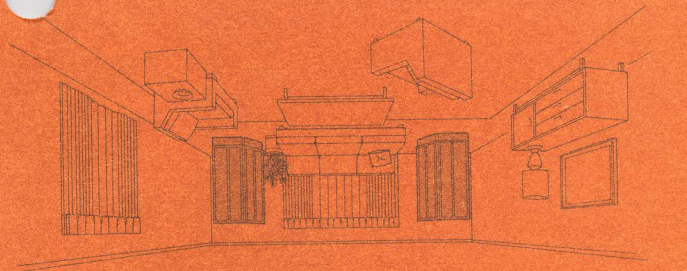
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In return for its unique sound quality, the Model Nine presents definite limitations which are well worth understanding. It requires the highest quality of associated equipment to avoid distortion effects (including those from turntable rumble and acoustic feedback) that are masked by less accurate loudspeakers. It also requires high power (a minimum of 40 watts RMS per stereo channel) from an amplifier capable of delivering full power into a load impedance of 16 ohms. It must be placed at least three feet from a wall for unimpeded dipole radiation. And it is not suited, particularly in view of its severe demands on an amplifier, to use at very high listening levels, in abnormally large rooms, or in areas of high ambient noise level.

Where either very loud sound levels in a large room are desired or in locations ambient noise is substantially higher than in a normal home environment, we suggest that two complete Model Nines, (i.e. two panels for each channel) be used. Each set of panels may be joined in a shallow "V" configuration with the brackets supplied for maximum bass output and optimum dispersion. When this type of system in this configuration is used no electro-acoustic transducer known to us can rival the accuracy and transparency of the Model Nine. Only the original five performance will surpass it.

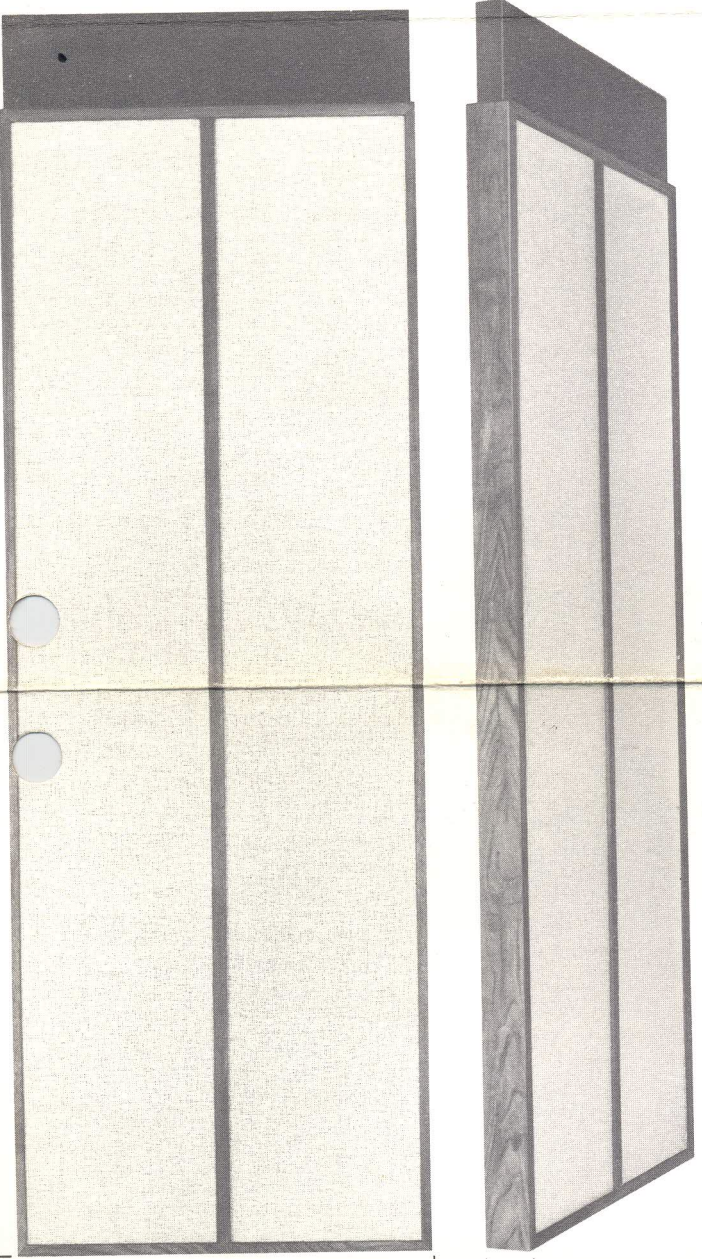
The special qualities of the Model Nine unquestionably call for the prospective buyer to form his own judgments on the basis of actual performance rather than any recommendation, however authoritative. To this test, we offer the Model Nine with full confidence that it will satisfy the most critical listener.

Impedance: 16 Ω nominal - 30 Ω maximum (primarily resistive in the 20 Hz to 20 kHz region)
 Amplifier: 40 watts RMS into 16 Ω , minimum per panel.
 Shipping: 158 lb nominal (shipped in two cartons)
 Suggested Retail Price: \$1395.00 per pair (sections are not sold individually) in Oiled Walnut.
 Other finishes are available on special order at extra cost.



23 1/2"

2 7/8"



TWO YEAR WARRANTY

KLH guarantees the Model Nine against all defects in materials and workmanship for two years from the date of purchase, providing all necessary repairs without charge either for parts or for labor. The Model Nine is not field repairable. All repairs under the warranty must be performed at the KLH Factory, and prior written authorization from KLH is required before a Model Nine may be returned for service. Transportation charges to and from the factory for any repair covered by the warranty are paid by KLH.

(The terms of the warranty are fully stated in the Model Nine instruction manual.)



KLH RESEARCH AND DEVELOPMENT CORP.
 30 Cross Street, Cambridge, Massachusetts 02139

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