

**It takes a computer to get bass this big  
into a cabinet this small.**



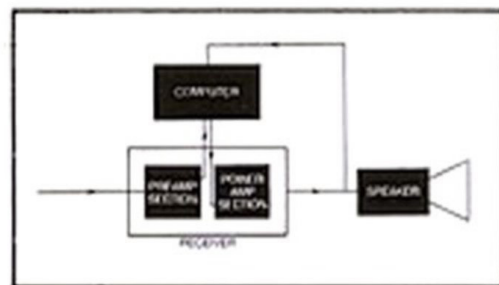
**Introducing the world's first  
Computer Controlled Loudspeakers.™**

**KLH**



**KLH-1  
KLH-2  
KLH-3**  
**with Analog Bass Computer**

# The KLH Analog Bass Computer™\*

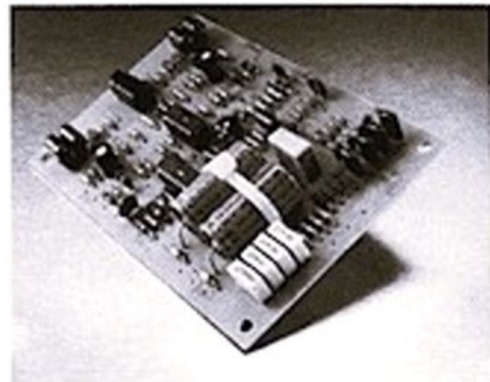


Our answer is to solve the problem electronically — with the world's first Computer Controlled Loudspeakers.

The KLH Analog Bass Computer, supplied with the speakers, is a separate component which connects to your receiver or amplifier. It continually monitors the bass signal and automatically controls woofer excursion as the needs of the music dictate, to prevent distortion. (More detailed technical information is available on request.)

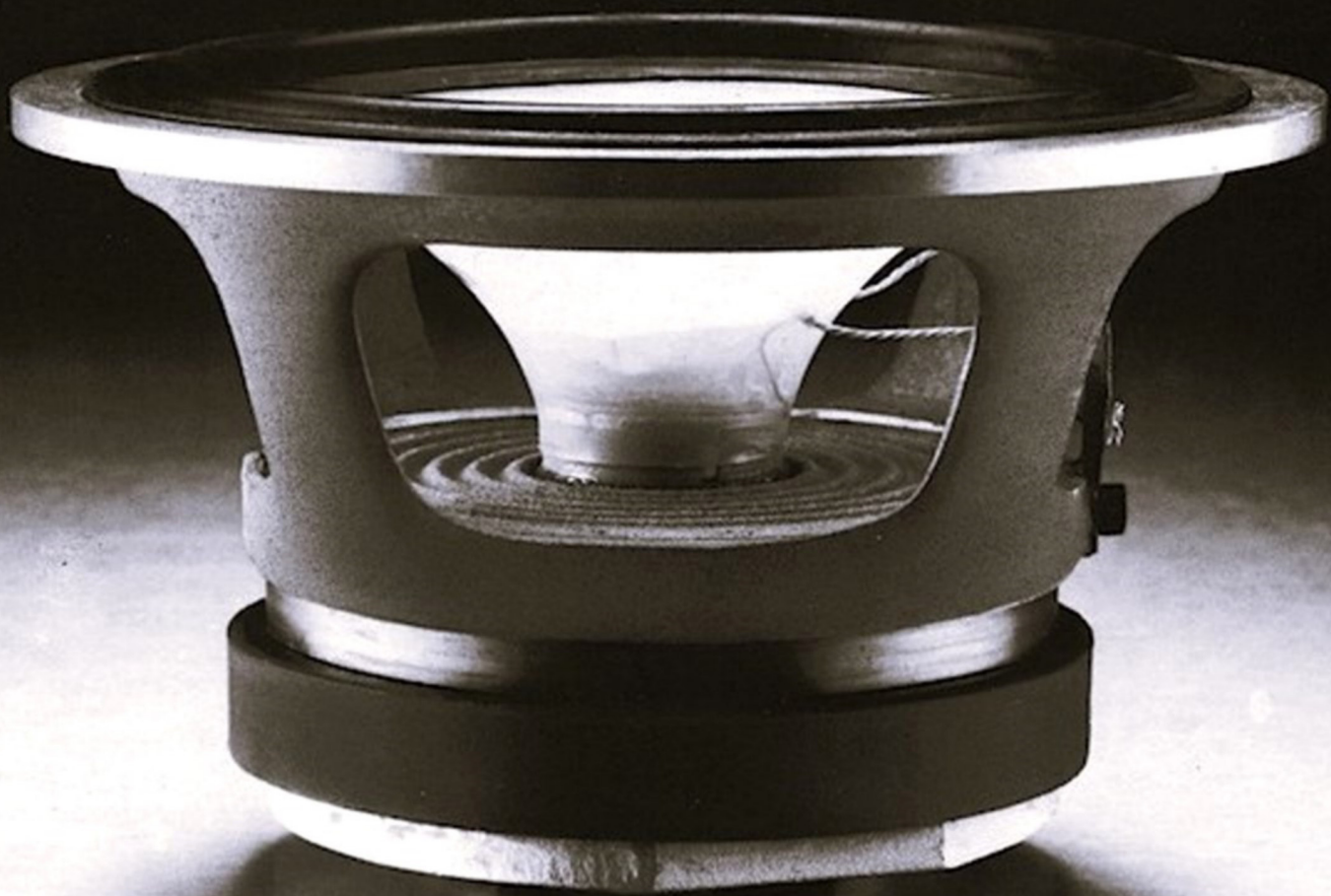
The Analog Bass Computer has allowed us to design speakers closer to their theoretical performance than ever before.

What this means is a line of speakers that can reproduce clean tight bass equal to optimally designed acoustic suspension speakers four times their size.



In fact, KLH computer controlled speakers will outperform comparably priced speakers regardless of size. They finally obsolete the notion that great sound requires great furniture.

# KLH design. It takes more than computer control to make a great loudspeaker.



Analog Bass Computer technology is such a big step forward in speaker design, we could have easily quit right there.

But we didn't.

After researching a wide range of speaker cone materials, we chose polypropylene — a material first developed for speaker use by BBC engineers.

The movement of the polypropylene cone more faithfully reflects the electrical signal than either paper or bextrene cones. So it reduces coloration caused by "break-up" — uncontrolled cone movement.

The result is exceptional definition and clarity in the mid-range — particularly noticeable on the sounds which are most familiar, such as the human voice, hand

clapping, and the subtle ambiance around instruments and singers.

Of course, we chose the other elements of our speakers with equal care:

Instead of stamped steel baskets to support the speaker cones, ours are precision die cast.

Our magnet assemblies are massive — bigger than those found on much larger speakers.

We even added an acoustically absorbent foam baffle around our high-range drivers, for smoother response and clear, precise stereo imaging.

Finally, we use genuine walnut veneers in our cabinet construction. Because we think a speaker should look as good as it sounds.



Most speakers suffer from edge diffraction which causes a loss of stereo imaging. This occurs when mid and high frequencies are reflected off the cabinet and its edges.



KLH acoustically absorbent foam baffles maintain a clear, precise stereo image by eliminating reflections and diffraction effects.

# KLH-1.

## The most dramatic expression of computer control technology.

Uncompromising.

That's as close as any single word comes to describing the performance of the new KLH-1. It is certainly one of the finest speakers ever made.

Its twin computer-controlled woofers provide flat bass all the way down to 30 Hz (-3dB). Like the KLH-2 and KLH-3, it has polypropylene cones for a clear, uncolored mid-range and high end—with remarkable smoothness and clarity—and a control that lets you adjust the response for room placement.

The KLH-1 is our largest computer-controlled model. At 11" x 30½" x 10¼", though, it's not much larger than most bookshelf speakers. Yet the clarity, the openness, the precise stereo imaging, and, of course, the accurate well-controlled bass of the KLH-1 can be compared with loudspeaker systems of any size. And at any price.

Audition the KLH-1 against the toughest competition you can think of. With any type of music you like.

You simply won't find anything better.

### SPECIFICATIONS

- Designed for vertical use on stand supplied.
- 1.25 cu. ft./35 litre floor-standing speaker system, with Analog Bass Computer.
- Optimally designed equalized sixth-order system.
- -3 dB at 30 Hz, 105 dB s.p.l. (system in room).
- Sensitivity: 87 dB/1 Watt at 1 Meter, 1KHz.

- Two new 200 mm KLH woofers with polypropylene cones, cast-baskets.
- New 100 mm KLH mid-range with polypropylene cone.
- New 25 mm KLH tweeter.
- Crossover frequencies 500 Hz, 4 kHz.
- Acoustically absorbent foam on front baffle reduces high frequency diffraction effects, improves stereo imaging and smoothness of response.
- Suggested for use with receivers or amplifiers of 2 x 40W to 2 x 200W.
- Controls: Computer in/out, tape monitor, l.f. position compensation, h.f. and amplifier overload indicators.

- Dimensions (approx.) speakers: 11" x 30½" x 10¼"/280 mm x 775 mm x 260 mm. Analog Bass Computer: 2½" x 10½" x 6"/60 mm x 270 mm x 150 mm.
- Shipping Weight (approx.): 125 lbs./57 Kg
- Speakers finished in genuine walnut veneer—black removable grille. Speaker stands included.
- Warranty: five years (see complete warranty statement).

28 x 77.5 x 26

**KLH1**



# Why you couldn't get big bass from small speakers before.

When high fidelity was in its infancy, every component was big and bulky.

But speakers presented the biggest problem by far.

It wasn't uncommon for a serious listener to rearrange a whole room around a speaker that measured nine cubic feet or more.

Why so big? To reproduce bass. Laws of physics show that it's simply easier to get good bass from a big speaker than from a small one.

Those same laws, however, show that it's theoretically possible to get excellent bass performance from more practically sized cabinets. And for years, speaker manufacturers have been moving closer to that theoretical

ideal. One major advance was the acoustic suspension loudspeaker, KLH's first product. Acoustic suspension provided clean, deep bass in a smaller cabinet, and it set the standard for the industry.

The largest problem in reducing cabinet size still further while improving bass has been that a small cabinet means a small woofer — and a small woofer has to work harder to produce as much sound as a large woofer. If bass response weren't limited, excessive cone motion would cause distortion and even damage during very deep or very loud bass passages.

All of which has meant that big bass from a small cabinet has been impossible.

Until now.



The Early Days: Big bass meant big speakers. 1957: The original KLH-1. Acoustic suspension allowed big bass from a bookshelf-sized cabinet. 1979: KLH introduces Computer Controlled Loudspeakers — with bass equal to speakers four times their size.