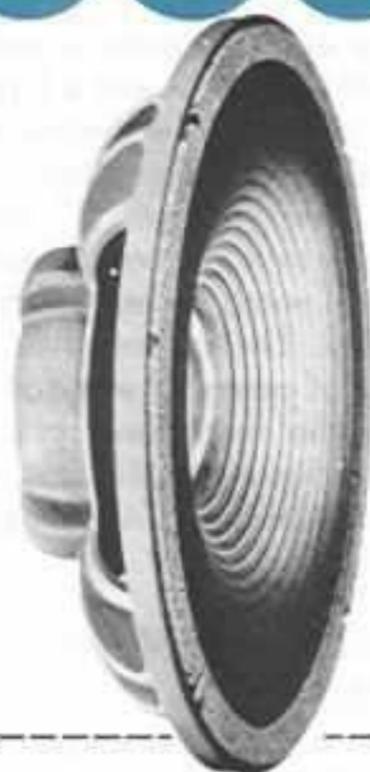


b u l l e t i n

Model
D123
12" extended
range
speaker

Number SB1001



- shallow "step-down" frame
- flush wall mounting between studs
- three inch voice coil
- wide range frequency response

mtg. hole dia. 1 1/4"

SPECIFICATIONS

physical dimensions
(Outline drawing shows diameter, width, mounting holes)

Voice coil diameter.....3"
Baffle hole diameter.....11"
Shipping weight.....12 lbs.

electrical

Power input.....20 watts
Impedance.....16 ohms
Field.....Permanent Alnico V Magnet

acoustical

Free air cone resonance.....35 c.p.s.
Frequency response, usable range, as a direct radiator, enclosed in an adequate baffle.....30-15,000 c.p.s.

The Jim Lansing Signature Model D123 is a 12" Extended Range Speaker of radical new design. It is extremely shallow and very compact so that it may be mounted in enclosures and places which heretofore required a unit of smaller diameter. With a depth of just 3 5/8", the D123 is the first and only 12" speaker that can be mounted, between studding, flush with the surface of any standard wall or partition. Of course, the D123 is not limited to wall mounting; its performance is improved when enclosed in a reflex cabinet or loaded with a horn.

CONSTRUCTION
dynamic assembly

The D123 is provided with a 3" diameter voice coil of edge-wound aluminum ribbon attached directly to a 3" dural center dome. The structural relationship between the diameter of the cone and diameter of the voice coil is one of the most important factors in the quality performance at all frequencies within the range of this speaker. This four-to-one ratio is found only in Signature units and is a unique achievement of James B. Lansing Sound, Inc. Smooth response is assured by rigidly attaching dome to voice coil. If compliance existed in this area, the resulting resonant peaks and dips would cause rough, harsh response at high frequencies. Electro-magnetomotive forces are of the highest order.

every note
a perfect quote!

The cone, especially designed for the D123, is curvilinear, extremely shallow, and combines high rigidity with specially damped flexible compliance.

frame

To permit the most shallow possible construction, a new frame design has been developed. This "underslung" or "stepped-down" chassis is precision cast aluminum alloy.

pot

The pot is constructed of pure iron to provide a low reluctance return path for the magnetomotive force.

Through advanced design, such extremely efficient use is made of the permanent magnet material used in this speaker, that external, or stray, magnetic fields are virtually non-existent. A simple examination by holding a small iron object close to the pot, will show this is so. Try this with several other loudspeakers. Any stray magnetic field is magnetic force that is not available in the voice coil gap. (Also, when present in proximity to TV and other electronic devices, stray magnetic fields impair the performance of these instruments.) Through better basic engineering design, virtually all of the magnetomotive force in Signature Speakers is entirely confined within the gap. This extends the speaker's frequency range, raises its efficiency, and results in better all around performance.

PERFORMANCE

The useable frequency response range of the D123 when used as a direct radiator and enclosed in an adequate baffle extends from 30 to 15,000 cycles per second.

The unique construction of the Signature D123 makes it capable of highly accurate, extraordinarily flat, distortion-free reproduction. The three inch voice coil and curvilinear cone form a very rigid acoustic piston which transduces low frequencies into precisely defined

bass notes. The rigid dural dome delivers smooth, extended highs; and the shallow form of the cone permits a much better distribution of highs than is possible with any other construction of the same type.

The efficiency of these units is outstanding. Close voice coil tolerances and a large amount of conductor uniformly subjected to intense magnetic force provide tight electrical coupling. The 3" voice coil with 3" dural dome attached directly to it (no compliance between coil and dome) result in an unusually rigid piston assembly. The rightness of the basic design, the use of carefully selected, top quality materials, the meticulous craftsmanship with which the Signature D123 is assembled provide a transduction instrument of unequalled quality.

signature enclosures suitable for housing the D123:

Model C35 & C36 Console Reflex Enclosures.
Model C37 & C38 Low-Boy Reflex Enclosures.

Detailed plans for constructing either of these enclosures are available for \$1.00 per set. When ordering plans, specify the exact model number desired.

A bulletin discussing and describing bass reflex enclosures is available upon request without charge.

ASSOCIATED SIGNATURE UNITS

The D123 may be used singly or in multiples, or in combination with all other Signature units. Impedance characteristics of the D123 will provide proper matching with Signature units of the same impedance such as the D130, D131, 130A, 130B, 175DLH, and Signature Dividing Networks such as the N1200 and N3500. Model D123 is used as a low frequency unit in Signature Kit Number 002 together with the 075 High Frequency Unit and the N3500 Dividing Network.

APPLICATIONS



- *in home high fidelity music systems.*
- *for voice reinforcement.*
- *as an auxiliary speaker.*
- *for theater surround units.*
- *for low level and background music.*
- *for paging systems.*
- *in quality sound systems built-into hotels and bars.*
- *in airports and railway stations.*
- *as a quality TV speaker.*

For complete description of all Jim Lansing Signature units, write for catalog SC501.