

*A Jim Lansing*  
**SIGNATURE**  
*Speaker*

**MODEL D-130**

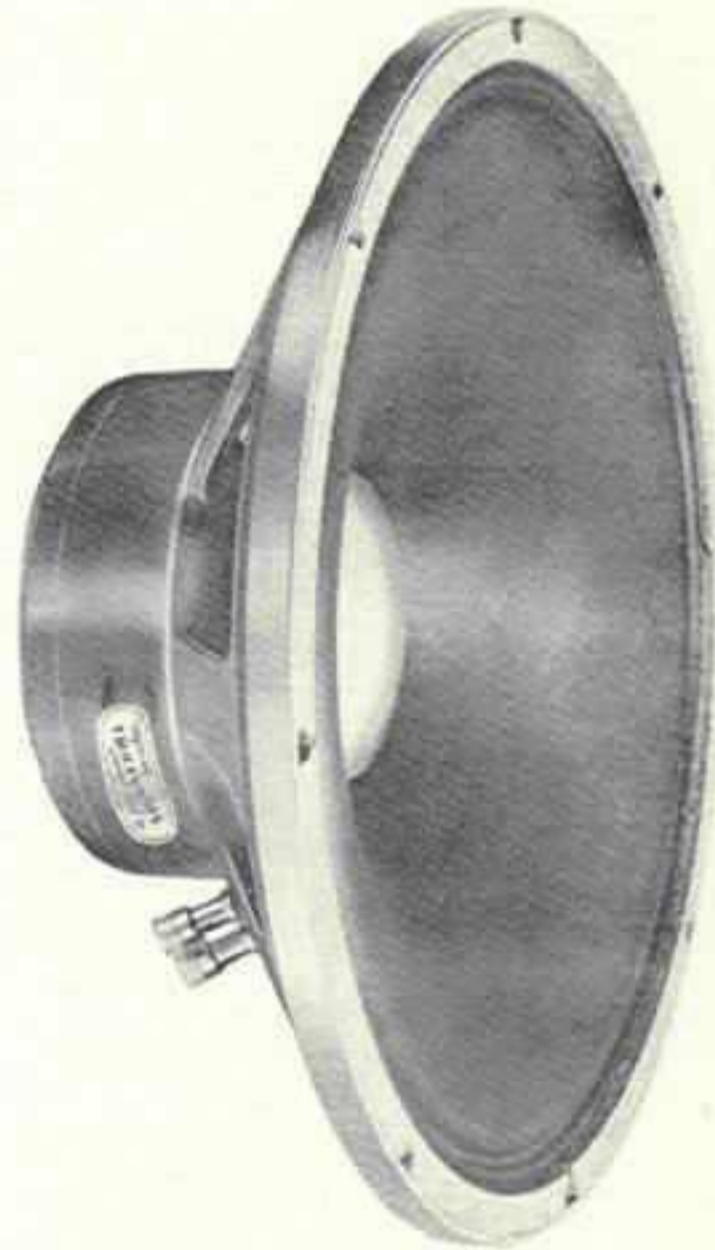
Loudspeaker is a 15 inch unit especially designed for music systems and public address use. It has exceptionally high efficiency.

The cone frame is cast aluminum for high rigidity and light weight. The 4 inch diameter voice coil is wound with aluminum ribbon to insure the maximum use of the magnetic-flux in the gap. An aluminum diaphragm is attached directly to the voice coil tube in order to extend the high frequency range. The shallow curved diaphragm offers minimum interference or reflection from the metal diaphragm radiator at the higher frequencies.

The heavy Alnico V magnet is entirely enclosed in a heavy field case in order to prevent stray magnetic fields. A newly designed magnetic structure permits the more efficient use of magnetic materials and decreases the space requirements for the unit. It can be used near cathode ray or television tubes without effecting their performance.

**SPECIFICATIONS:**

POWER INPUT . . . . .	20 watts
IMPEDENCE . . . . .	15 ohms
RESONANT FREQUENCY . . . . .	55 cycles
OUTSIDE DIAMETER . . . . .	15-3/16 inches
DEPTH . . . . .	5-5/8 inches
FIELD . . . . .	permanent magnet
VOICE COIL DIAMETER . . . . .	4 inches
MOUNTING DIMENSIONS . . . . .	RMA Standard
NET WEIGHT . . . . .	24 pounds
SHIPPING WEIGHT . . . . .	27 pounds



**LIST PRICE**  
**\$77.50**

**JAMES B. LANSING SOUND INC.**  
 4221 SOUTH LINCOLN BOULEVARD  
 VENICE, CALIFORNIA



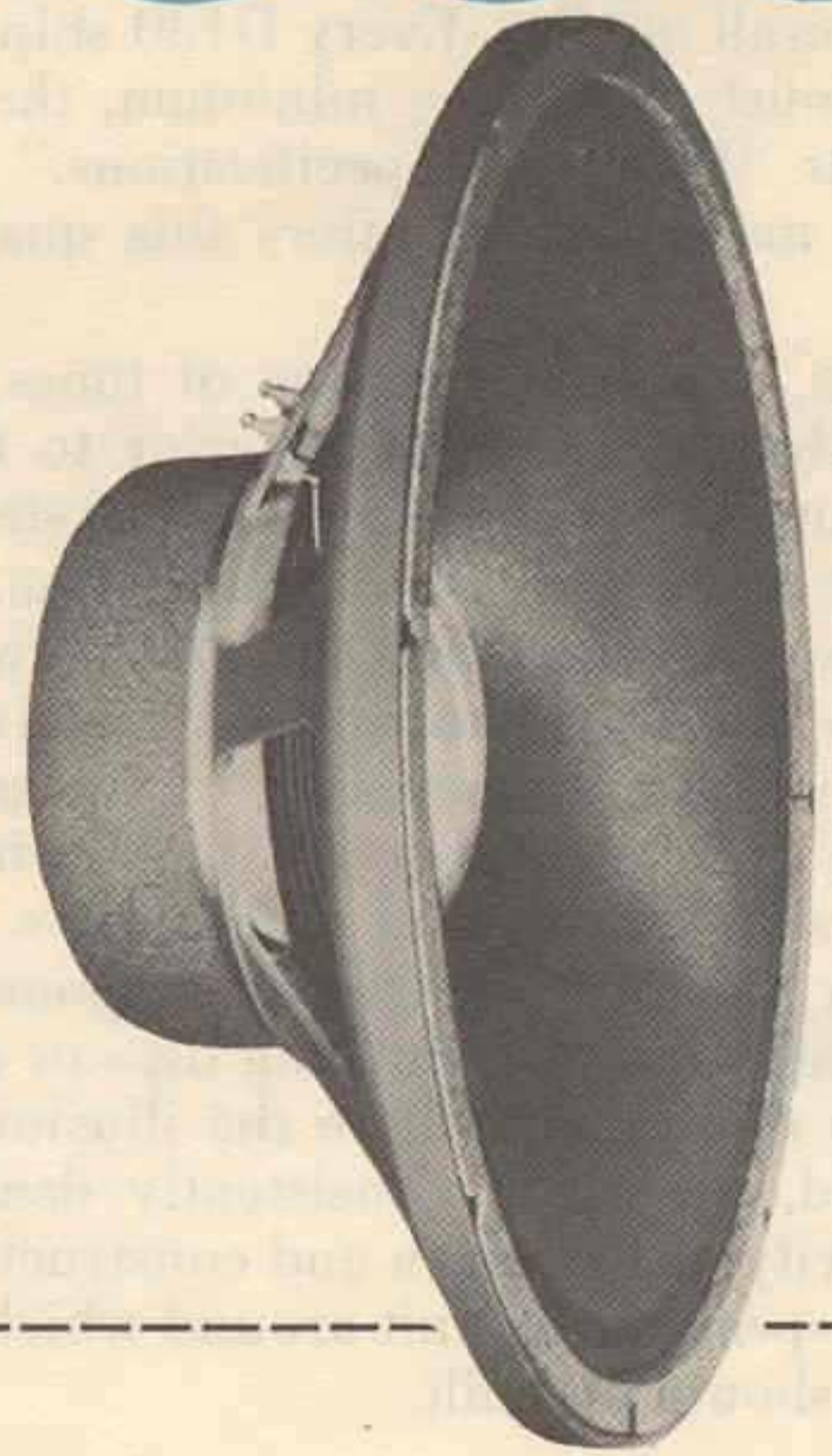
b u l l e t i n

Model  
D130  
15" extended  
range  
speaker

Number SB1002

David Beatty

1616 Westport Road  
Kansas City 11, Mo.  
Telephone: JE 1-3110



- your basic speaker
- the only fifteen-inch extended range speaker made with a 4" voice coil
- splendid transient response
- highly efficient
- convincing "presence," smooth highs, precision lows

mtg. screw hole dia.  $\frac{3}{16}$ "

**SPECIFICATIONS**

*physical dimensions*

Voice coil diameter.....4"  
Baffle hole diameter.....13 1/2"  
Shipping weight.....23 lbs.

*electrical*

Power input.....25 Watts  
Impedance.....16 Ohms  
Field.....Permanent Alnico V Magnet  
Bl factor..... $1.7 \times 10^7$  Dynes per Abampere

*acoustical*

Free air cone resonance.....37 cps  
Frequency response, usable range,  
as a direct radiator, enclosed in an  
adequate baffle.....30-17,000 cps

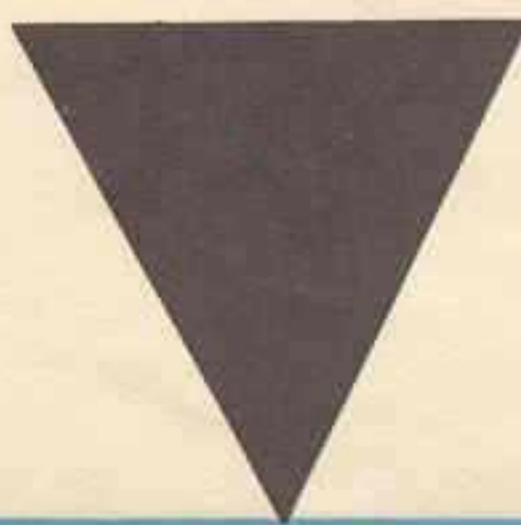
The JBL *Signature* Model D130 Extended Range Loudspeaker is designed to serve as the basic speaker for people who wish to build sound systems of the highest quality. By itself, the D130, when properly enclosed, will reproduce every frequency recorded on the finest modern transcriptions. Best results will be obtained by using this speaker in straight or folded horn enclosures and in well designed bass reflex enclosures. Satisfactory, but less effective, results will be obtained when it is used with completely enclosed boxes, infinite baffles, or mounted in a wall. The D130 may also be used as a low frequency unit in divided network systems because it balances perfectly with other JBL *Signature* units—such as the 175DLH High Frequency Unit and the N1200 Dividing Network or, the 075 H.F. Ring Radiator and the N2500 Dividing Network. Thus, the D130 need never be superseded. It may be used as an extended range unit alone when a low-cost musical system is begun, and later serves as a low frequency unit in a two-way system when the builder gathers together the very finest equipment of all types available. The D130 is imaginatively designed, carefully engineered, and precision made. It is the only 15" loudspeaker made with a 4" voice coil and is the most efficient cone-type loudspeaker produced anywhere.

**CONSTRUCTION**  
*dynamic assembly*

The D130 has a 4" diameter voice coil of edge-wound aluminum ribbon attached directly to a 4" dural center dome.

The Alnico V permanent magnet is contained in a magnetic structure machined to the closest possible tolerances.

The shallow curvilinear cone permits an excellent distribution of highs when the D130 is used as an extended range unit. At the same time the 4" voice coil gives the cone the stiffness it needs for crisp, clean bass reproduction.



every note  
a perfect quote!



Suspension permits long linear excursion for distortion-free low notes.

#### *frame*

The frame is a rigid, aluminum casting eliminating the disagreeable resonances which occur in all punch-press fabricated speaker baskets.

#### *pot*

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

Through advanced design, such extremely efficient use is made of the permanent magnet material, that external, or stray, magnetic fields are virtually non-existent. This can easily be observed by holding a small iron object close to the pot. 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 magneto-motive force in Signature Speakers is released directly through 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 D130 when used as a direct radiator and enclosed in an adequate baffle extends from 30 to 17,000 cycles per second.

The D130 is outstanding for its high electrical and acoustical efficiency. Among cone-type speakers it has no peer in handling transients or sharp wave fronts. These characteristics are directly due to a combination of tight electrical and rigid mechanical coupling. Tight electrical coupling results from high flux density, close voice coil tolerances, and a large amount of conductor uniformly subjected to the magnetic field. The 4" voice coil with 4" dural dome attached directly to it are responsible for the rigid mechanical coupling. Thus, cone area between coil and suspension is kept relatively small; compliance between coil and dome is eliminated.

The complete electrical and magnetic properties of each D130 are tested at final inspection by measuring each unit's *Bl* factor. This measurement is made with

*\*The Bl Factor is specified in terms of dynes per abampere rather than the conventional gauss per centimeter inasmuch as the speaker is measured in the Bl tester by determining the abamperes required to produce a specific force in dynes. The two figures are, of course, numerically identical.*

special equipment designed by Jim Lansing Signature engineers specifically for this purpose.\* This insures maximum efficiency, consistent high end response, and dependable overall quality. Every D130 shipped from the factory must meet, as a minimum, the *Bl* factor stated under "Electrical Specifications." No other loudspeaker manufacturer offers this quality control.

Definition of tones, and combinations of tones, of any frequency within its range is superior to that delivered by all but the very best two-way systems. In the design of the D130 there is no compromise. An adequate high frequency unit and divided network may be added to the D130 to obtain the finest response possible without the necessity of replacing equipment already purchased. The D130 transduces high frequencies with clarity and detail. Low frequencies are clean and precise. Overall response is smooth, linearly flat, without disturbing dips or strident peaks. In the mid-range, where the illusion of presence is created, the D130 consistently demonstrates the superiority of its design and construction. This is your basic speaker, the unit around which all other components should be built.

#### *signature enclosures suitable for housing the D130:*

Model C34 Back-Loaded Corner-Console Horn  
Model C35 and C36 Console Reflex Enclosures  
Model C37 and C38 Low Boy Reflex Enclosures  
Model C39 Multiple/Reflex Enclosure  
Model C435 Back-Loaded Black Finish Enclosures.

Bulletins discussing and describing Signature bass reflex enclosures and the C34 horn are available upon request without charge.

Detailed plans for constructing any of these enclosures are available at \$1.00 per set; specify set desired.

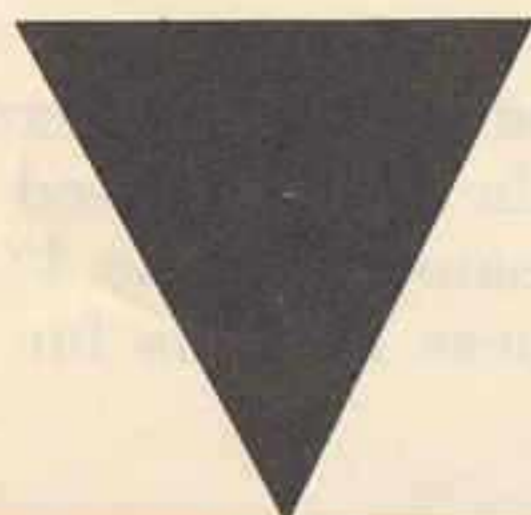
#### **ASSOCIATED SIGNATURE UNITS**

The D130 may be used singly, or in multiple speaker systems along with various combinations of other Signature units. The impedance characteristic of the D130 will provide proper matching with Signature units of the same impedance (such as models D123, D131, D216, 130A, 175DLH with Signature Dividing Network N1200 and 075 with Signature Dividing Network N2500.)

#### **APPLICATIONS**

- home high fidelity music systems
- top quality sound systems in hotels and bars
- quality TV or tape recorder speaker
- theater surround units
- radio broadcast monitoring
- public address systems

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



**JBL**

*Signature*

*sound*

JAMES B. LANSING SOUND, INC. • 2439 FLETCHER DRIVE • LOS ANGELES 39, CALIF.

PRINTED IN U.S.A.