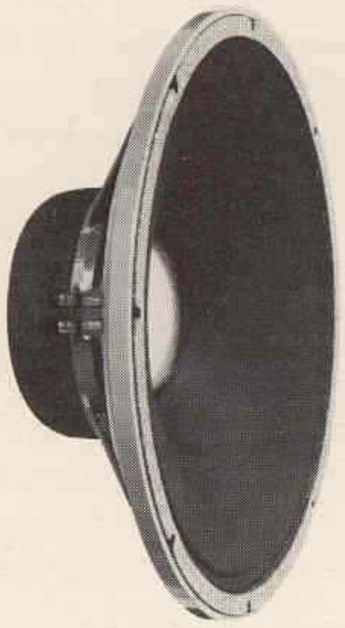
JBL

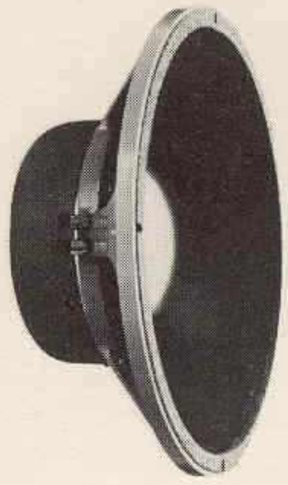
MAXIMUM EFFICIENCY EXTENDED RANGE SPEAKERS

D208	8″
D216	8″
D123	12″
D131	12″
D130	15″

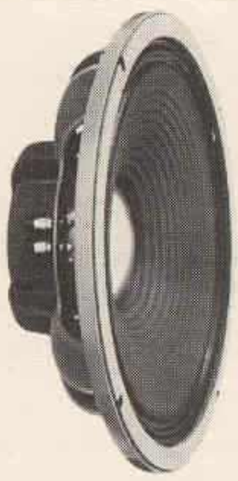
These JBL extended range loudspeakers are used in high fidelity installations, for broadcast monitoring, as theater surround speakers, and in highest quality commercial sound installations.



D130



D131



D123

D208/D216

JBL maximum efficiency extended range loudspeakers are true precision transducers. Any of these units will give satisfaction as the basic speaker for people who wish to assemble component high fidelity sound systems of the highest quality. The careful engineering and beautiful craftsmanship embodied in JBL transducers are responsible for their crisp, clean reproduction of all types of music.

Maximum efficiency speakers are especially noted for their bright, lucid presence range and their remarkably incisive delineation of the most complicated transients. The ability of JBL speakers to capture fleeting transient sounds which characterize all musical program material has long been recognized.

These precision cone speakers will deliver optimum performance in rear-loading horns or matched reflex enclosures. Satisfactory but less impressive results will be obtained if a speaker is installed in an "infinite baffle" or mounted in a wall. Models D208, D216 and D123 are shallow enough to mount between the studs of a normal wall or ceiling. This type of installation is often used for extension speakers where space cannot easily be provided for more elaborate acoustical enclosures.

DYNAMIC ASSEMBLY Each JBL extended range maximum efficiency loudspeaker uses a large diameter voice coil of edgewound aluminum ribbon attached directly to the aluminum center dome.

Although a voice coil of large diameter is difficult to fabricate and requires a carefully crafted magnetic assembly, it gives best possible control over the motion of the loudspeaker cone. A cone driven by a large voice coil operates as a true piston, following intricate electrical waveforms with high accuracy.

Similarly, making a voice coil of fine aluminum ribbon wound on edge is a much more painstaking and complicated process than if ordinary wire were used. But the edgewound ribbon voice coil take full advantage of *all* the precious magnetomotive energy supplied by the magnet. Efficiency is heightened, dynamic range greatly increased, and the speaker is able to handle momentary overloads without damage.

High frequencies are reproduced by the shiny aluminum center dome. The dome is carefully drawn to shape by hydraulic pressure. No part of it is thinner, heavier, or more compliant than any other part. As a result, the dome adds no coloration to reproduced sound. High frequency performance is clear and natural.

MAGNETIC STRUCTURE The massive pot structure on each of these JBL maximum efficiency loudspeakers is made of special low-carbon cast iron to provide a low reluctance return path for the magnetic lines of force. As in all JBL precision transducers, the magnetic assembly is purely functional—no decorative caps or covers of any kind are used.

In JBL speakers, *all* of the magnetomotive energy supplied by the heavy magnet is concentrated in the one place where it contributes directly to performance... the voice coil gap. Wasteful stray fields are non-existant. This can easily be verified by holding a small iron object close to the pot and noting that almost no attraction exists.

Moreover, because of the extremely small clearance allowed between the moving voice coil and the fixed magnetic pole pieces (less than 0.05") much higher flux density can be realized than if more ordinary construction were employed.

PERFORMANCE The unique construction of a JBL extended range loudspeaker makes it capable of highly accurate, distortion-free reproduction. The large voice coil and curvilinear cone forms a very rigid acoustic piston which reproduces low frequencies as precisely defined bass notes. The aluminum dome delivers smooth, extended highs.

ASSOCIATED JBL UNITS At any time, a precision high frequency unit and dividing network may be added to any JBL extended range speaker to obtain the finest possible performance without the necessity of replacing equipment already purchased. The resulting two-way system will offer even greater clarity and brilliance in the high frequency range, plus wider dispersion of treble tones. It will also allow you to adjust the intensity balance between low and high frequencies to suit the characteristics of your particular listening room.

The JBL 075 Ring Radiator and N2600 network will balance perfectly with any JBL maximum efficiency extended range loudspeaker. The dividing network allows the cone speaker to function normally up to 2500 cps. Above this frequency, treble tones are reproduced by the Ring Radiator.

Models D130 and D131 are also often used in conjunction with the massive 175DLH high frequency assembly and N1200 dividing network. Since a crossover frequency of 1200 cps is employed, the full presence range as well as the region of musical overtones is reproduced by the high frequency driver-horn-acoustic lens assembly.

SPECIFICATIONS CHART

	D208/D216	D123	D131	D130
Impedance	D208 – 8 ohms D216 – 16 ohms	16 ohms	16 ohms.	16 ohms
Voice coil diameter	2 inches	3 inches	4 inches	4 inches
Flux density	9,800 gauss	9,300 gauss	11,500 gauss	11,500 gauss
Total flux	90,000 maxwells	160,000 maxwells	260,000 maxwells	260,000 maxwells
Magnetic assembly	3½ lbs.	6 lbs.	11 lbs.	11 lbs.
Power capacity	12 watts cont. program	20 watts cont. program	25 watts cont. program	25 watts cont. program
Free air cone resonance	55 cps	40 cps	39 cps	37 cps
Frame	rigid cast aluminum	rigid cast aluminum	rigid cast aluminum	rigid cast aluminum
Diameter	8 inches	12 5/32 inches	12⅛ inches	15¼ inches
Baffle hole diameter	7 inches	11 inches	11 inches	13½ inches
Bolt hole circle	7½ inches	11 9/16 inches	11⅝ inches	14 9/16 inches
Depth	2⅞ inches	3⅝ inches	4 9/16 inches	5 9/16 inches
Shipping weight	6 lbs.	12 lbs.	21 lbs.	22½ lbs.

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