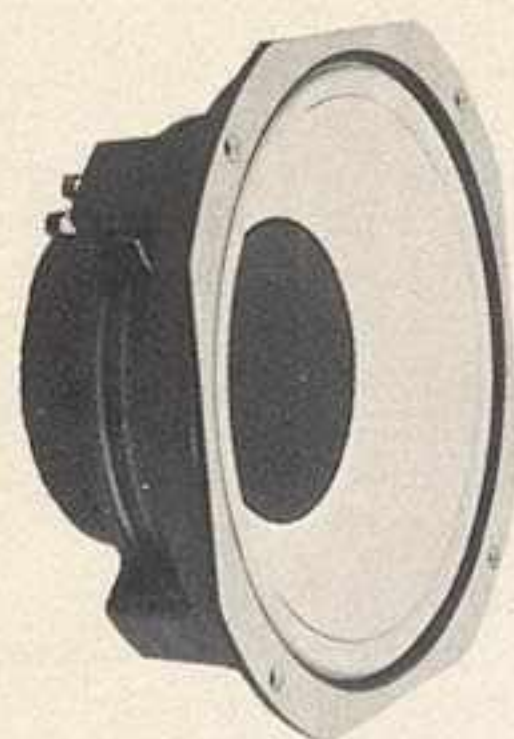


**JBL**

**LINEAR  
EFFICIENCY  
LOW FREQUENCY  
LOUDSPEAKERS**



The JBL LE10A is a powerful 10-inch Linear Efficiency low frequency loudspeaker which delivers crisp, solid bass fundamentals in an enclosure as small as one cubic foot.



The JBL LE14A generates full, spacious bass in enclosures as small as 1.6 cubic feet. The 4" voice coil, massive magnetic assembly and large diameter cone enable this remarkable transducer to trace faithfully the most elusive and complicated waveforms.



Engineered for the perfectionist, the LE15A can reproduce lowest musical fundamentals at full concert hall intensity. Designed for closed cabinets of 6-8 cubic feet internal volume, this amazing 15-inch transducer can generate tones so low that they exist in the threshold zone between feeling and hearing—yet without frequency doubling, muddiness, boom or hangover.

LE10A 10"

LE14A 14"

LE15A 15"

*Edgewound  
copper ribbon  
voice coils  
Grain oriented  
Alnico V Magnets  
Lans-a-loy cone  
terminations  
Precision cast  
aluminum frames*

Specifications	LE10A	LE14A	LE15A
Impedance	8 - 16 ohms	8 - 16 ohms	8 - 16 ohms
Voice Coil Diameter	3"	4"	4"
Flux density	10,000 gauss	11,000 gauss	11,000 gauss
Total Flux	160,000 maxwells	250,000 maxwells	450,000 maxwells
Magnetic Assembly	6 lbs	11-1/2 lbs	19-1/2 lbs
Power Capacity*	30 watts	30 watts	60 watts
Free air cone resonance	20 cps	25 cps	20 cps
Diameter	10-1/4"	13-7/8"	15-5/16"
Bolt hole circle	9-5/8"	13-9/32"	14-5/8"
Baffle hole, front mtg.	9-1/8"	12-13/32"	14-1/4"
Baffle hole, rear mtg.	9"	12-1/8"	13-1/2"
Depth	4-3/16"	5-1/4"	5-13/16"
Shipping weight	15 lbs	21 lbs	26 lbs
Recommended crossover	2000 cps or lower	1500 cps or lower	600 cps or lower

\*Based on proper acoustic load: See "Amplifier Requirements."

**JBL**

# JBL

LE10A 10"

LE14A 14"

LE15A 15"

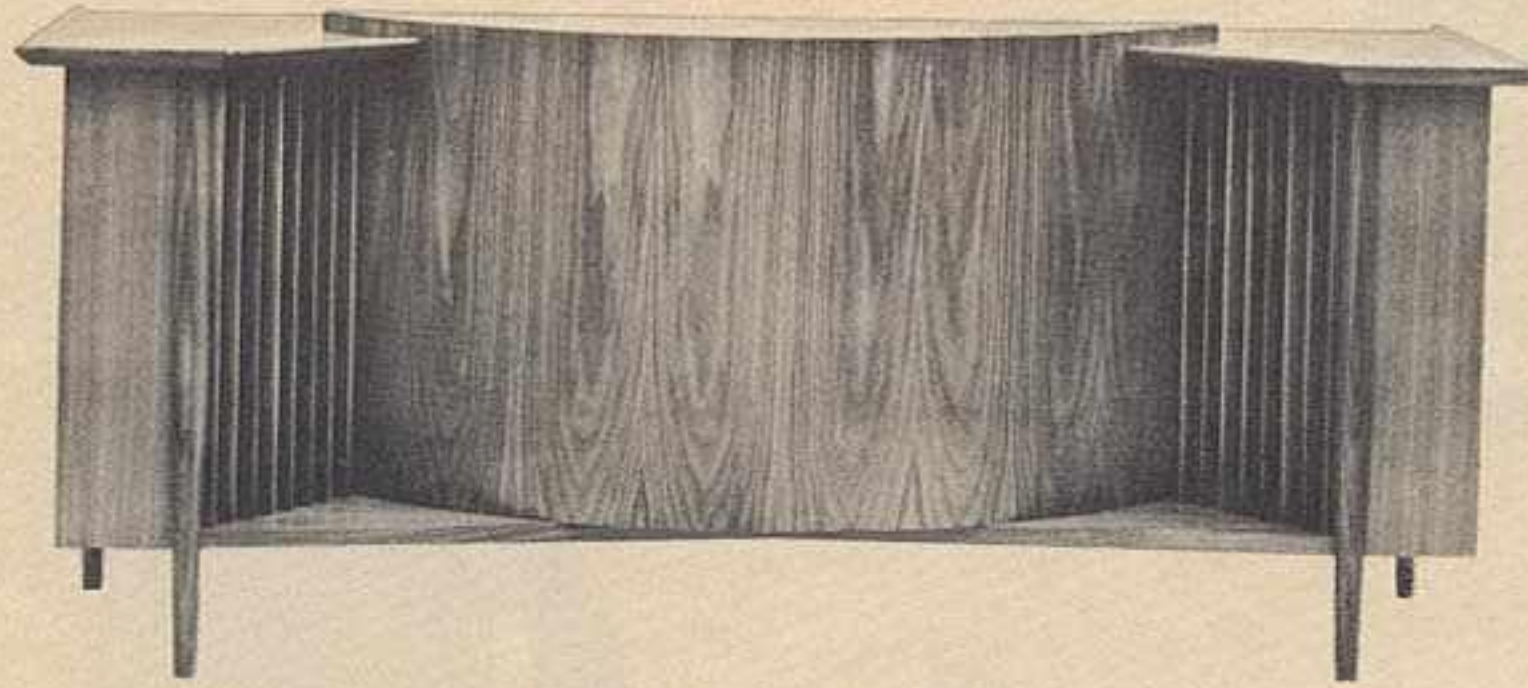
## MOUNTING AND BAFFLING

Custom-built enclosure requirements are extremely flexible. The LE10A gives outstanding reproduction in small ported enclosures of one cubic foot or greater volume.

Enclosures for the LE14A may be as small as 1.6 cubic feet. The LE15A delivers optimum results installed in a sealed cabinet of six to eight cubic feet internal volume.

Enclosures should be solidly built, and completely rigid. Large panels should be braced to prevent unwanted resonances. No two dimensions may exceed a ratio of 3:1. Interior surfaces, except the speaker mounting board, should be liberally padded with absorbent material.

For maximum realization of the capabilities of these loudspeakers, it is preferable to mount them from the front of the baffle board, as is done in most JBL enclosures. To front-mount the LE15A in custom enclosures, a set of cast clamps and gasket material (MA15 kit) is available. However, bolts and T-nuts are supplied with each LE15A for conventional rear-mounting. The frame design of the LE10A and LE14A permits them to be front-mounted directly.



## THE METREGON

These Linear Efficiency speakers are frequently used to reproduce bass fundamentals in the Metregon integrated stereo reproducer.

**OPTIMUM DESIGN SPECIFICATIONS** The fresh engineering concepts embodied in these low frequency transducers set new standards for realistic reproduction of bass frequencies. Reproduction is clean, crisp, effortless, inherently linear and distortion-free. JBL two-way systems employing these speakers have the unmistakable feeling of "presence." Bass is not only solid, it has the free, spacious quality associated with a live musical performance.

**VOICE COIL AND CONE** In each of these low frequency loudspeakers, an edgewound copper ribbon voice coil is precisely centered in an intense magnetic field. Perfect symmetry is maintained so that the coil is immersed in constant flux through its full travel. The cone is integrally stiffened and non-resonant.

**LANS-A-LOY SUSPENSION** The outer edge of the cone is terminated in a ring of Lans-a-loy. This material, developed by JBL engineers, is inert, self damping, and impervious to changes in temperature or humidity. It not only damps out spurious sound waves traveling through the cone, but it also allows the cone to move great distances with perfect linearity. This free suspension, made possible by the development of lans-a-loy, is one of the most important engineering advances in the design of cone-type loudspeakers.

**MAGNETIC ASSEMBLY** All of the magnetomotive force provided by the powerful magnets in these speakers is concentrated in the one place where it contributes to the performance: the voice coil gap. There is no stray magnetic field. This can be verified by holding a small iron object close to the pot structure and noting that no attraction exists. Critical clearance between the voice coil and the fixed pole pieces is only 8/1000-inch. The resulting high electromechanical coupling gives unsurpassed control over vital transient response. This ability to capture elusive transient waveforms is a universally admired feature of all JBL precision transducers.

**AMPLIFIER REQUIREMENTS** The power capacity of a loudspeaker has no necessary connection with the power rating of the amplifier used. Linear Efficiency transducers will give outstanding results with the JBL Solid State Energizer or any high quality amplifier. They will re-create full-bodied performance with amplifiers rated as low as 15 watts available power per channel. However, their wide dynamic range ensures sufficient reserve to handle the most intense transient peaks, and permits the use of amplifiers of extremely high power rating. So long as you do not unplug tubes or input connectors while the system is in operation, there is almost no danger of overload, even when the most powerful amplifiers are employed.

## ASSOCIATED SYSTEMS

**LE10A** The LE10A is normally combined with the LE20 high frequency transducer and the LX4-2 crossover network to make the S11 two-way loudspeaker system. The S11 delivers smooth, full-range performance even when installed in small enclosures. These are the same components found in the popular JBL Lancer 77.

**LE14A** This speaker will balance with transducers crossing over as high as 1500 cps, and is usually combined with the LE175 or LE20 high frequency drivers. The LE14A and the LE175, in conjunction with appropriate horns and networks, comprise full-dimensional sound systems second only to the incomparable S7.

**LE15A** A number of systems are possible with the LE15A. It is normally used with the LE85 or the 375 high frequency drivers. The incomparable performance of the S7 system, utilizing the LE85, is so clear, exciting and lifelike that it has earned the praise of musicians and professional listeners throughout the world.

*FOR MORE ROBUST BASS: JBL "passive radiators" may be used in conjunction with these speakers for richer bass, greater dynamic range, and smoother response well up into the mid-range. Inquire at your franchised JBL dealer.*

