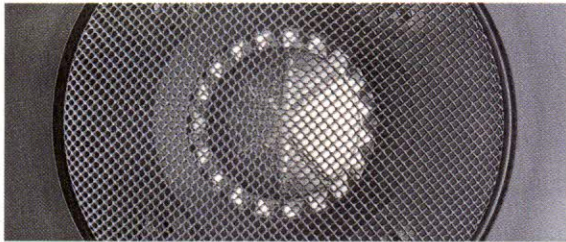


TITANIUM... FOR THE CLEAREST SOUND AVAILABLE

The fundamental tones for music and vocals occur in the middle and low frequencies. However, the unique character of various musical instruments is defined by the high frequency range.

The high frequency transducer must be light enough, yet strong enough to respond instantly and withstand the rapid acceleration and deceleration of demanding musical transients. To best accomplish this, JBL selected titanium for the L Series high frequency transducers.

Titanium has an extremely high strength-to-weight ratio. But until recently it could not be fabricated thin enough to produce a practical dome tweeter. JBL engineers solved that problem by developing a unique process that swirls compressed nitrogen gas against a film of titanium only 25 microns thick - thinner than a human hair. The process forms the dome perfectly and without causing stress fractures.



Being that thin, however, makes the dome subject to deformation. JBL engineers solved that problem by creating an intricate network of ribs formed directly into the dome. By forming the metal in this pattern, the weight remains unchanged but the stiffness increases tenfold. The final dome is capable of responding fast, precisely and for long periods of time, with no material fatigue to deliver sound that is unstrained, clear and clean.

Further inspection of the titanium high frequency transducer reveals a patented structuring of diamond shaped folds surrounding the transducer. This diamond surround shifts the resonant frequencies of the dome to well above 20,000 Hz and below 2,000 Hz. The result is high frequency response that is flat to 27,000 Hz and absolutely smooth, effortless and neutral in sound character through the critical 3,000 to 20,000 Hz range.

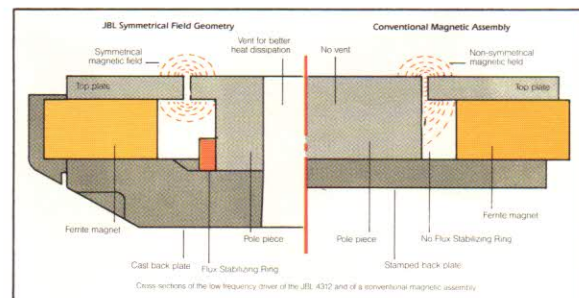
SPECIALLY DEVELOPED MATERIALS FOR THE BEST MIDRANGE AND LOW FREQUENCY REPRODUCTION

A specially derived filled polypropylene cone material gives the L20T low frequency transducer excellent internal damping for smooth, flat frequency response, while providing the stiffness needed for accurate reproduction of musical transients.

The low frequency transducer of the L60T is constructed with a laminated high polymer which maximizes stiffness and damping for this particular device. The same high polymer laminate is used in the construction of the mid-range transducer found in the L80T and L100T to provide smooth, uncolored mid's and resistance to break-up at high power levels.

Aquaplas was chosen as the damping and stiffening material for application to the low frequency transducer cones of both L80T and L100T. These larger low frequency drivers require a cone that is low in mass yet extremely rigid. Aquaplas produces a light cone that is rigid enough not to collapse under high drive levels. The result is a low frequency driver capable of linear, low distortion bass response at all output levels.

JBL'S SFG (SYMMETRICAL FIELD GEOMETRY)



JBL's unique SFG (Symmetrical Field Geometry) design reduces second harmonic distortion to levels far below those found in drivers using conventional magnetic structures. A powerful magnetic structure and large voice coil combined with SFG creates a low frequency driver capable of producing dynamic, low distortion bass response. Die-cast aluminium frames and precision machined magnetic circuit components ensure a lifetime of high quality performance.