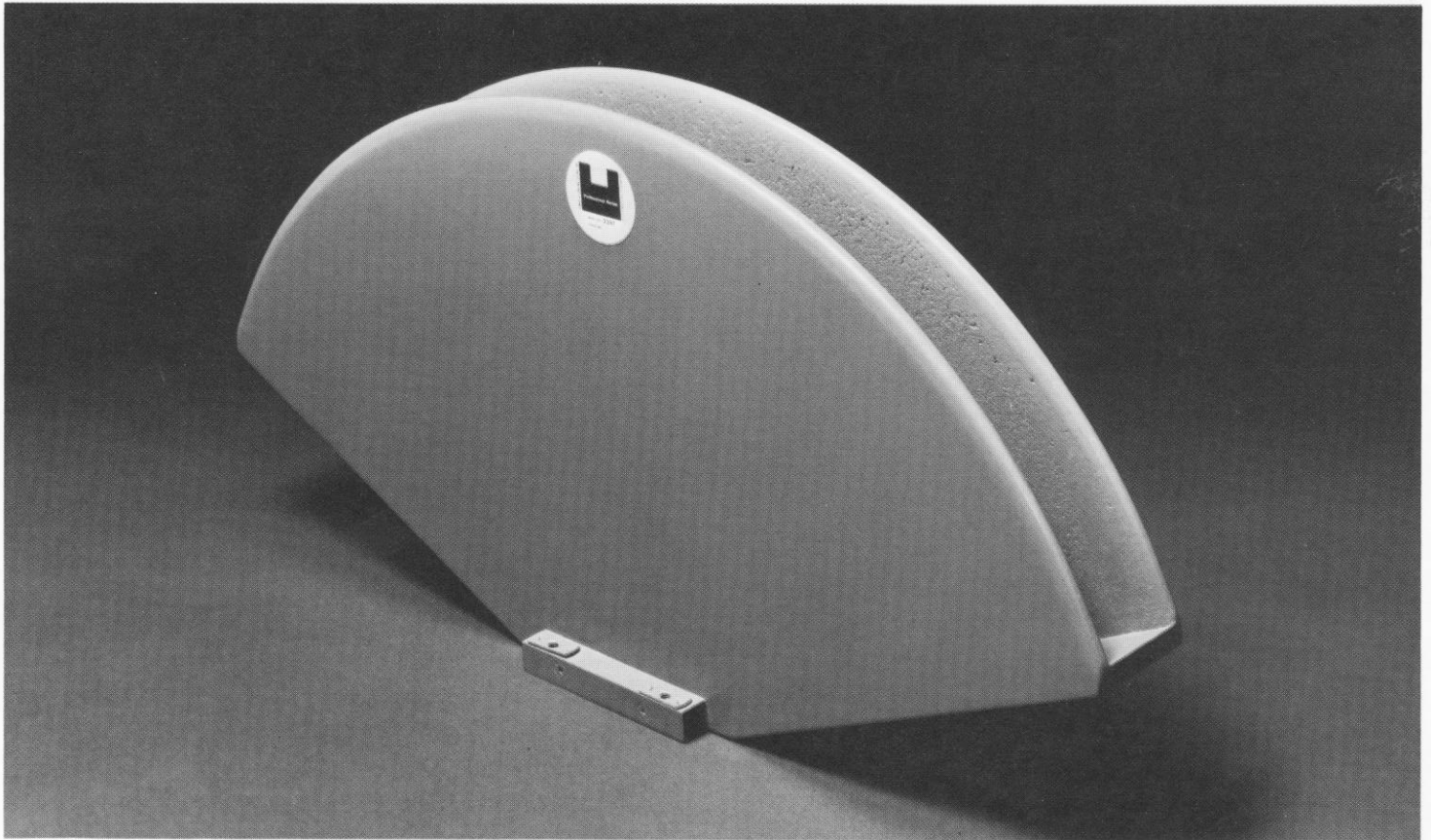


Professional Series 2397 Diffraction Horn

Extremely wide horizontal coverage,
with minimum high frequency beaming

Controlled vertical pattern

Exceptionally smooth, uncolored sound quality



The 2397 is a unique high frequency horn noted for exceptionally wide dispersion and smooth, uncolored sound character. Originally developed for motion picture sound reproduction, it is ideal for other short throw applications and has been used with great success in custom designed control room monitor systems.

The 2397 is unconventional in both external appearance and operating principle. Inside its narrow throat is a radial array of five precisely shaped power distributing vanes, which serve to divide the sound path into six independent passages of identi-

cal, exponential shape. These passages share the nearly semicircular horn mouth, a narrow slit which operates as a diffraction radiator in the vertical plane.

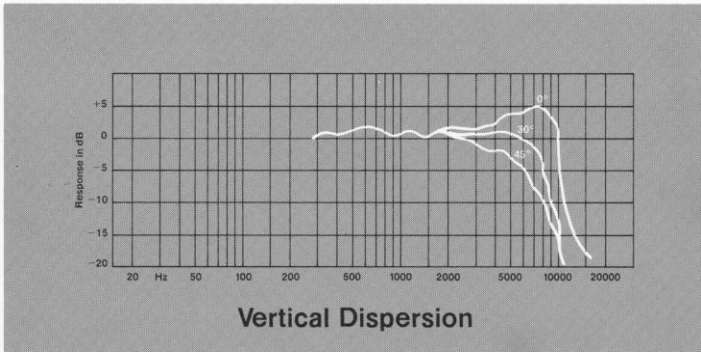
Because of the action of the power distributors, the 2397 is notably free of high frequency beaming, and maintains its effective 140° horizontal coverage to the highest audible ranges, with only minor lobes appearing above 5 kHz. Vertical dispersion is largely dependent on the baffling; with the recommended cylindrical baffle extending at least 76 mm (3 in) above and below the mouth, a nominal 60° vertical beam-width is achieved. These dispersion characteristics

JBL

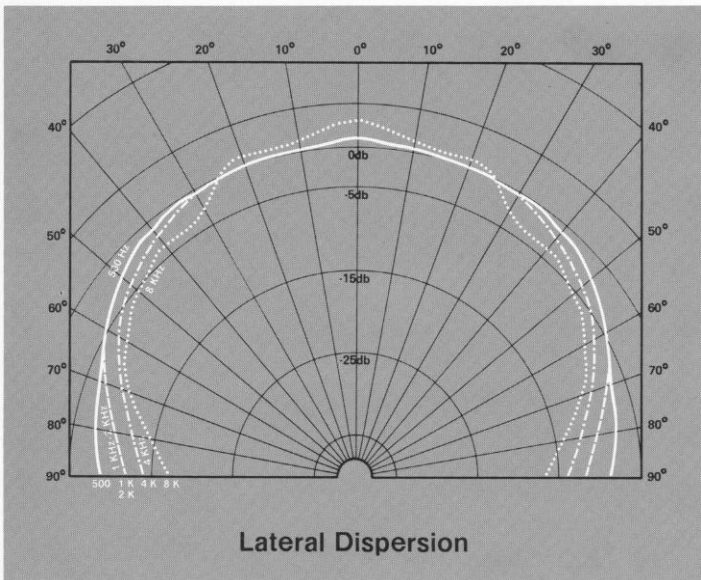
Model 2397 Diffraction Horn

make the 2397 especially useful for overhead mounting in rooms with low ceilings.

The 2397 is constructed entirely of dense, non-resonant wood, eliminating ringing and coloration. Its rectangular entry accepts the 2328 single driver throat or the 2329 dual driver throat to mate with JBL 50 mm (2 inch) compression drivers. The 2327 adaptor is available for use with 25 mm (1 inch) JBL drivers.



Vertical Dispersion



Lateral Dispersion

Above curves taken with 2440 compression driver.

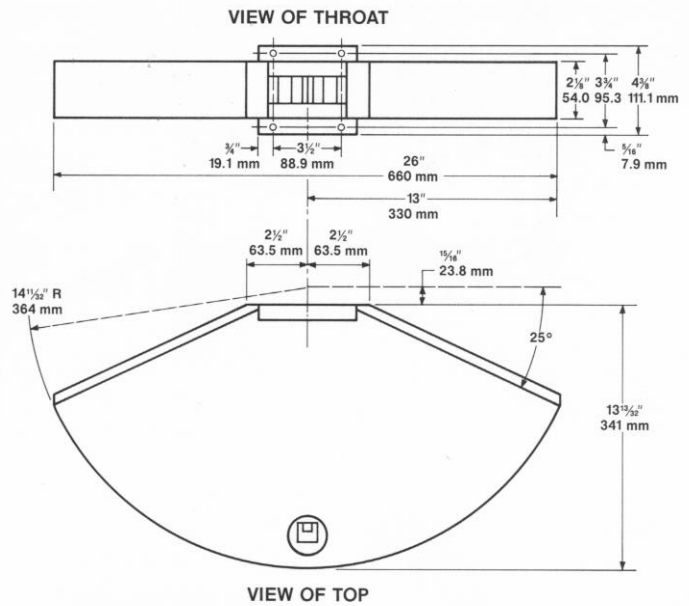
Specifications	
Recommended Driver ¹	2440
Nominal Dispersion (Horizontal x Vertical)	140° x 60° baffled
Lowest Recommended Crossover Frequency	800 Hz
Sensitivity ²	
1 W, 1 m (3.3 ft.)	108 dB SPL
1 mW, 30 ft. (9.1 m)	59 dB SPL
Nominal Q ³ (2 kHz octave band)	3.2
Throat Required ⁴	
Single 50 mm (2 in.) driver	2328
Dual 50 mm (2 in.) drivers	2329
Dimensions (Height x Width x Depth)	95 x 660 x 340 mm 3 3/4 in x 26 in x 13 3/8 in
Net Weight	4.4 kg 9 3/4 lb
Shipping Weight	5.2 kg 11 1/2 lb

¹A 2410, 2420, 2461 or 2470 compression driver (1-inch throat) may be used and will require a 2327 throat adaptor.

²Sensitivity is the SPL measured on-axis with an input signal swept from the lowest recommended crossover frequency to 2500 Hz, with any JBL driver.

³Q calculated by method outlined by Augspurger in the Guidebook of Practical Acoustics for the Sound Contractor, Appendix page C.

⁴Throat must be ordered separately.



Professional Division

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