

# Professional Series Radial Horns

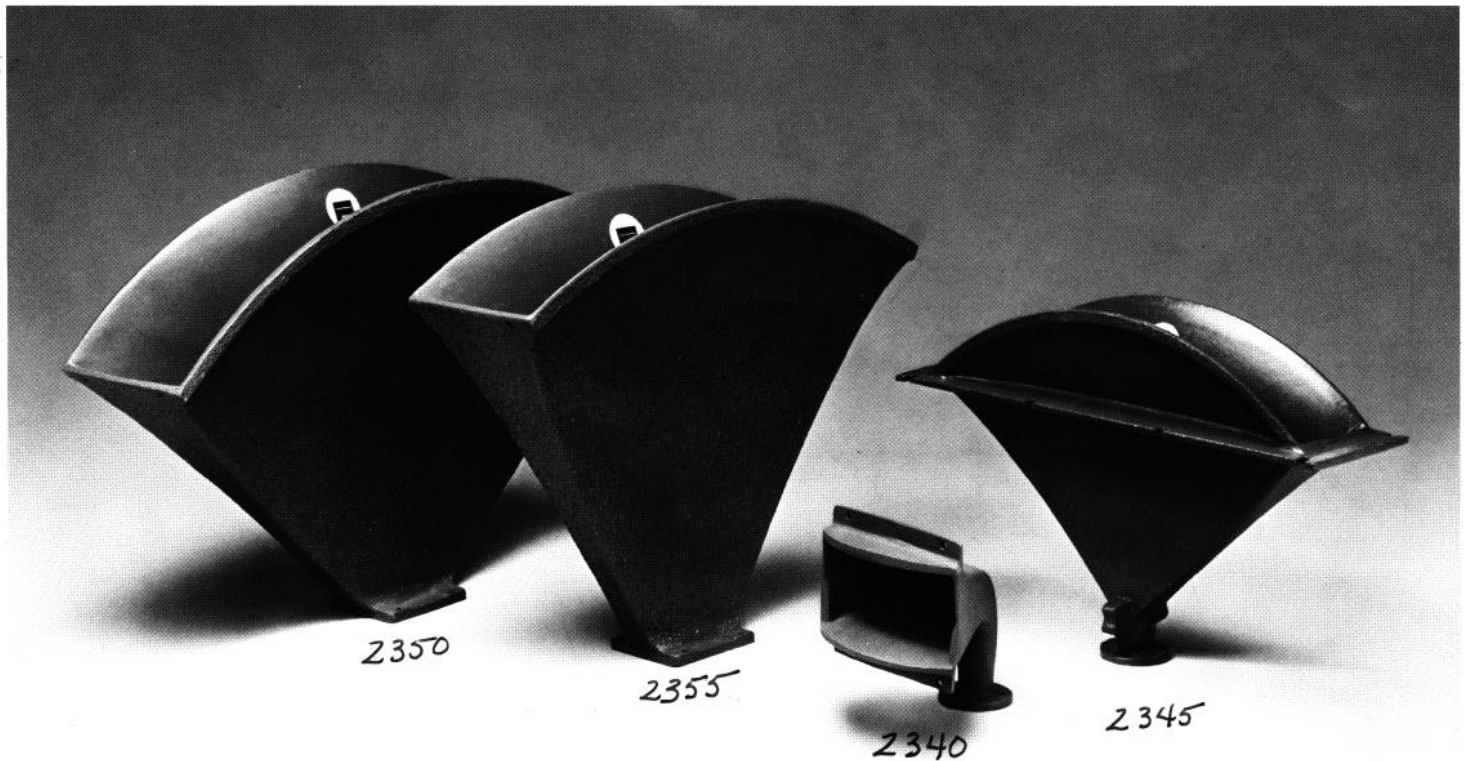
Wide horizontal, narrow vertical dispersion

For long-throw use

Uncolored musical reproduction

Compact and lightweight

Uniform wavefront



JBL radial horns are carefully designed according to advanced theoretical concepts and offer the audio engineer significant advantages in many sound reinforcement and sound reproduction applications. The most important of these are natural tonal quality, a controlled pattern of sound distribution through the full frequency range of the horn, and uniform frequency response characteristics at any point within the rated coverage angle.

**JBL**

# Radial Horn Family

In JBL radial horns, the wavefront expands smoothly through a single, unobstructed path. There are no dividers or discontinuities to introduce irregularities in response and consequent tonal coloration. All models are cast from aluminum, with thick wall sections to prevent flexing. Exterior surfaces of the large aluminum horns are coated with a heavy layer of special damping material to further guard against unwanted coloration or ringing.

Because the side walls of JBL radial horns are perfectly straight, the horizontal distribution pattern has sharply defined edges at all frequencies within the normal operating range of the device. In the vertical plane, the beam has a somewhat "softer" edge, becoming less directional at lower frequencies. As a result of JBL's exclusive throat design, frequency response is remarkably uniform throughout the rated dispersion pattern, even at very high frequencies.

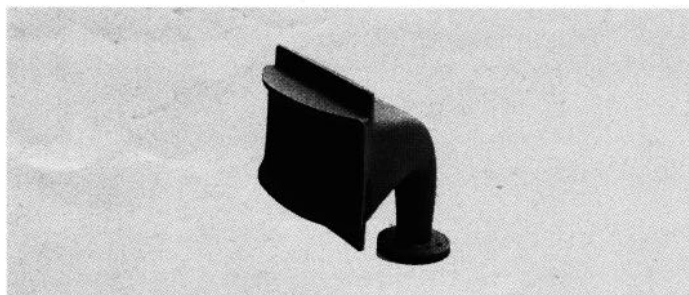
In comparison with multicell designs, JBL radial horns offer audibly smoother response and a more sharply defined horizontal pattern with complete freedom from high frequency "fingering." In general, these radial horns produce the effortless, natural quality of JBL horn-lens combinations, but with much tighter pattern control.

Except for the right-angle Model 2340, all JBL radial horns can be stacked to obtain greater directionality in the vertical plane and an attendant increase in sensitivity. For example, stacking four 2350 horns in a vertical array reduces the effective vertical coverage from 40° to 15° and boosts sensitivity several dB as compared with a single horn-driver.

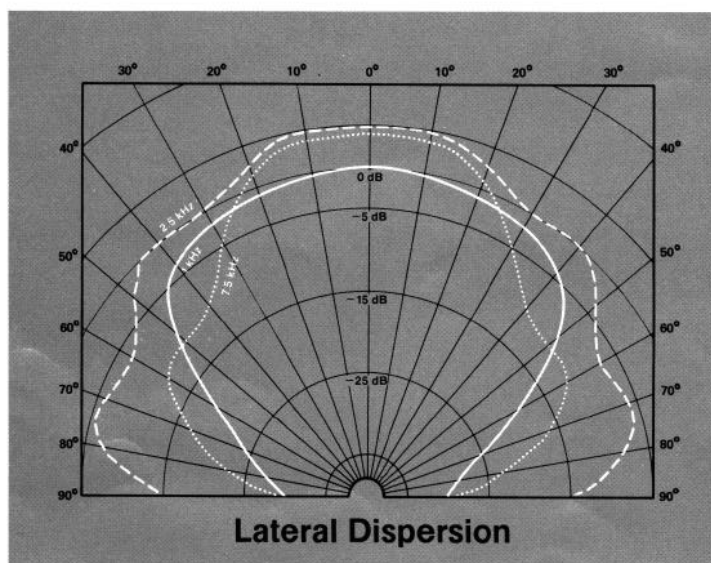
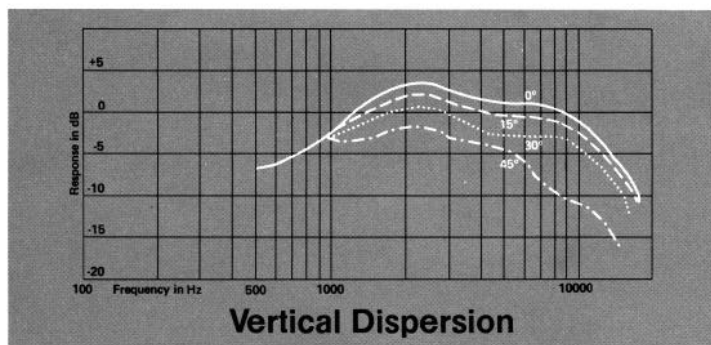
Model	Height	Width	Depth	Shipping Weight
<b>2340</b>	206 mm (8 1/8 in)	213 mm (8 3/8 in)	213 mm (8 3/8 in)	2.3 kg (5 lb)
<b>2345</b>	171 mm (6 3/4 in)	568 mm (22 3/8 in)	391 mm (15 3/8 in)	9 kg (20 lb)
<b>2350</b>	203 mm (8 in)	803 mm (31 5/8 in)	508 mm (20 in)	15 kg (33 lb)
<b>2355</b>	203 mm (8 in)	613 mm (24 1/8 in)	508 mm (20 in)	12 kg (26 lb)

NOTE: The sensitivity quoted for each horn is the SPL measured on-axis at 1 m (3.3 feet) with a 1 W input signal (4 V into 16 ohms) warbled from the lowest recommended crossover frequency to 2500 Hz, with any JBL driver.

# Model 2340



Model 2340 is a special modification of the radial horn configuration in which the horn throat includes a right-angle bend, thus allowing the horn-driver assembly to be used in shallow spaces. A unique cross-section development through the 90° bend maintains full horizontal coverage even at highest audible frequencies. Model 2340 has a rated pattern of 60° x 80° and is intended for use in systems having a 1200 Hz crossover frequency. (An 800 Hz crossover may be used with some loss of pattern control below 1000 Hz.) The horn is intended to be mounted to a baffle board, and includes flush-mount flanges as part of the heavy aluminum casting. The 2340 will mount to any JBL driver having a 25 mm (1 in) throat. Sensitivity is 108 dB. Nominal Q = 5 (2 kHz octave band).

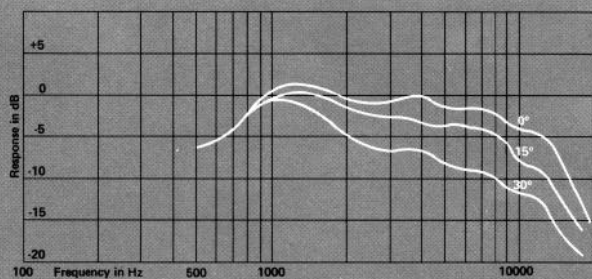


Above curves taken with 2410 compression driver.

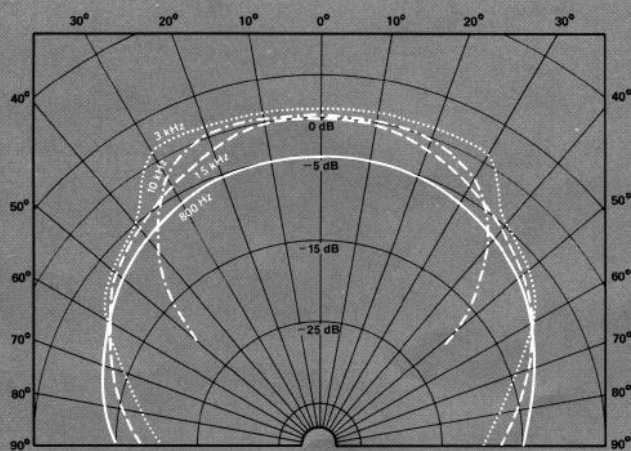
# Model 2345



Model 2345 is a compact radial horn having a rated pattern of  $40^\circ \times 90^\circ$ . It will mount directly to any JBL compression driver having a 25 mm (1 in) throat and is intended for use in systems crossing over at 800 Hz or higher. Model 2345 is especially recommended for short-throw reinforcement applications or portable loudspeaker systems, where larger horns are not practical. Sensitivity is 111 dB. Nominal  $Q=6.3$  (2 kHz octave band).



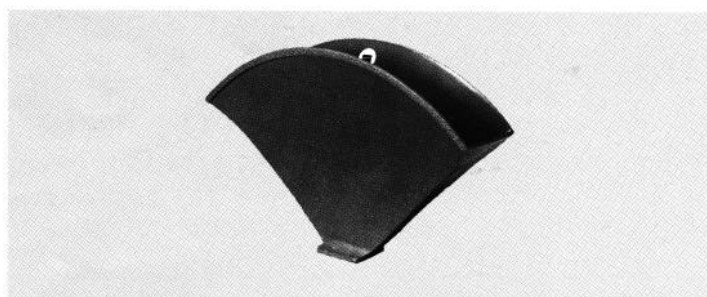
**Vertical Dispersion**



**Lateral Dispersion**

Above curves taken with 2410 compression driver.

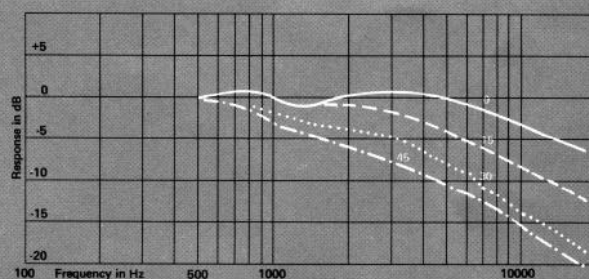
# Model 2350



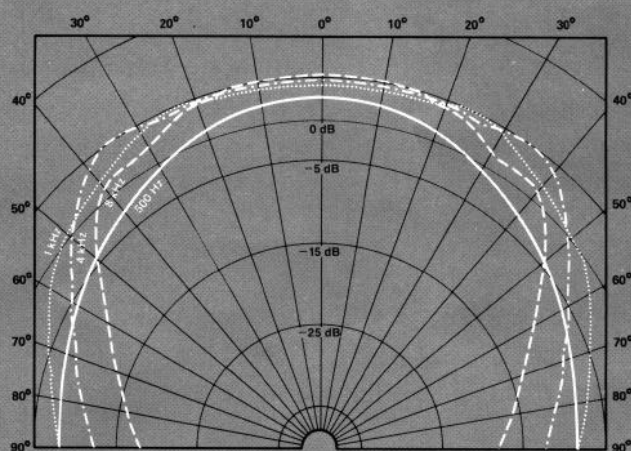
Model 2350 is a large, professional quality radial horn having a 220 Hz taper cutoff and carefully controlled coverage pattern rated at  $40^\circ \times 90^\circ$ . The horn is intended for use in systems crossing over at 500 Hz or higher, or may be used by itself with one or two phenolic-diaphragm drivers in speech-only systems having suitable low frequency rolloff. Sensitivity is 111 dB. Nominal  $Q=6.3$  (2 kHz octave band).

The 2350 requires the use of a Model 2328 throat adaptor to couple to a single 50 mm (2 in) throat driver, or a Model 2329 throat adaptor for use with two drivers. Additional Model 2327 throat extensions can be used to couple the 2350 to one or two JBL drivers having 25 mm (1 in) throats.

The 2350 is a highly versatile horn which can be used in a wide variety of applications ranging from high-power outdoor paging systems to low-distortion musical reinforcement installations of the highest quality.



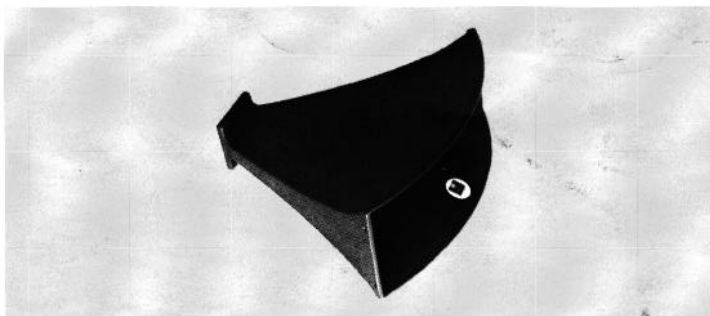
**Vertical Dispersion**



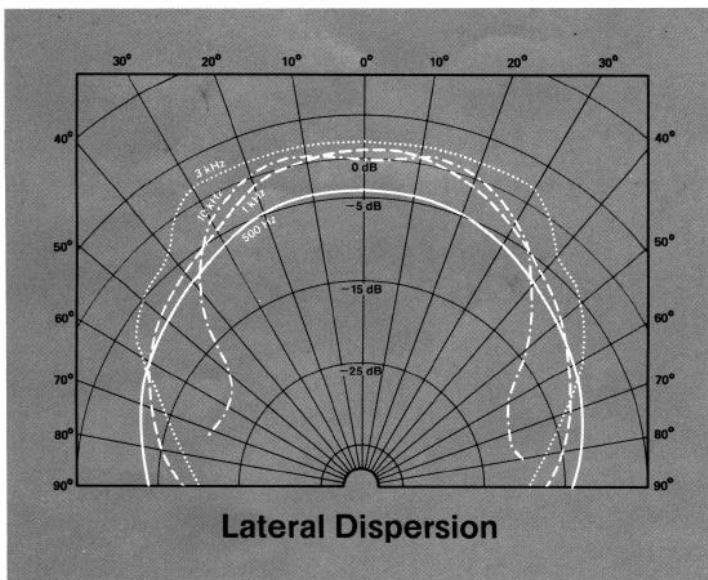
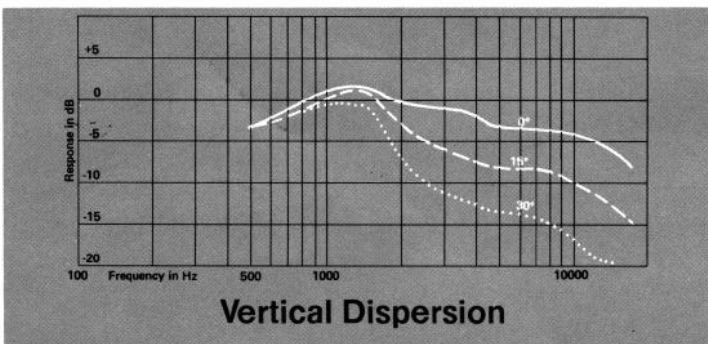
**Lateral Dispersion**

Above curves taken with 2441 compression driver.

# Model 2355



The general performance specifications and application notes for Model 2355 are exactly the same as those for Model 2350, except that rated coverage is  $40^\circ \times 60^\circ$ . Sensitivity is 114 dB. Nominal Q = 12.6 (2 kHz octave band).



Above curves taken with 2441 compression driver.



Professional Division

James B. Lansing Sound, Inc.,  
8500 Balboa Boulevard, Northridge, California 91329 U.S.A.

JBL/harman international