

---

Subject: Radial horns

Posted by [Wayne Parham](#) on Sun, 23 Feb 2003 05:50:16 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Radial horns are those that are extruded along the horizontal axis to form a "pie slice" shape with straight side walls. Their purpose is to provide wider horizontal coverage and their straight side walls generate a uniform dispersion pattern in that dimension, but with narrowing directivity in the vertical plane. Bi-Radial® is a registered trademark of JBL and it is similar, but has a more complex flare shape. The popular 2370 acts very much like a radial horn, having greater horizontal dispersion and narrowing directivity in the vertical plane. Below 1.6kHz, its vertical directivity begins to widen rapidly because of mouth diffraction, and JBL recommends vertical arrays to lower the frequency where vertical dispersion control is maintained. This is true, of course, for all mixed-dispersion horn shapes. For more information, see JBL's 2370 product literature. As for the crossover, both JBL's Bi-Radial® and their older radial horns work very well

This crossover has the additional benefit of damping resonance to prevent peaking near the crossover frequency.