

The New York Times

SOUND/Hans Fantel

Speakers With Some Room to Move

LOUDSPEAKERS WITH VARIABLE patterns of sound radiation are rare. Any newcomer to their ranks is bound to arouse interest — especially if the design is musically competent and not only cheap.

All of this applies to the CAM-16 by Ohm Acoustics, which uses a clever and effective method to fit the speaker's sound field to the acoustical character of a specific room. The principle involved is variable directivity.

While most loudspeakers radiate their sound mainly forward toward the listener, the upper-range sound of this new Ohm model can be aimed at any point in a full circle. This doesn't mean that the speaker is omnidirectional. It doesn't scatter sound in all directions at once. Its tweeter radiates in one direction only. But that direction can be specifically chosen to suit the needs of the listening room.

This is accomplished by means of a tweeter mounted in an egg-shaped and egg-sized capsule that can be rotated in a full circle atop the stationary woofer. The effects attainable by judicious aiming of the tweeter give this speaker an uncommon degree of acoustic versatility.

Turning the tweeter at odd angles — perhaps even away from the listener at the wall in back of the speakers

Judicious aiming of a tweeter can give a speaker an uncommon degree of acoustic versatility.

— creates two distinct effects: an increased sense of depth and spaciousness of sound and a wider spread of the area in which the stereo is perceived. Because of this augmented stereo spread, the listening position becomes less critical. Good stereo imaging can be achieved almost anywhere in the room.

Equally important, by aiming those swivel-mounted tweeters away from acoustical trouble spots, the listener can avoid disturbing sound reflections, and problematic rooms cease to be problems. For example, the tweeter may be aimed away from glass areas that usually cause sonic harshness when hit by a direct sound beam from a loudspeaker. By the same token, the sound can be made to glance off overly reflective walls rather than impinge head on. In this way, the speaker can produce sonically pleasing results in a great variety of domestic settings.

The speaker's variable directivity also permits uncommon latitude in its placement. A pair of them need not be lined up along the same wall. Thanks to their adjustable sound projection pattern, they can be arranged on adjacent walls or even opposite walls, as long as their unconventional placement is compensated by suitable angling of the tweeters. Even if the listener sits in a place completely asymmetric relative to the two speakers, the musical performers will seem exactly between the speakers.

Aside from its clever swivel tweeter, the Ohm CAM-16 is quite conventional, using a 6½-inch woofer in an enclosure measuring 17 inches in height, 9 inches in width, and 11 inches in depth. The manufacturer claims a frequency response from 46 to 20,000 Hertz with a maximum deviation of 4 decibels.

Perhaps the most surprising specification of this speaker is its price. A pair of them lists for \$300 and can often be had for less. Yet there's no telling from the sound that this is basically an inexpensive speaker. The overall balance is musically pleasing, with enough bass to give orchestral sound more credibility than is usually achieved by speakers of this size. Heavily scored passages imposed no audible strain, even when played at fairly high volume, and sudden chords struck on a piano rang out clearly, without any "smearing" of the initial impact when the hammers hit the strings. The speaker's ability to handle higher levels of sound without signs of distress is helped along by the liquid cooling of the tweeter and the sturdy carpentry, which keeps the cabinet from vibrating. Quite aside from this speaker's remarkable adaptability, its basic musical merit surpasses most models in this price bracket.