

audiofile

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Both sides now

Want to know how to start an argument in a hi-fi store? Ask two salespeople for their opinion on what type of speaker is the best for the surround channels in a home-theatre system: monopolar, dipolar or bipolar.

Monopolar speakers are the most common. In this design, all the speakers are mounted on the front of the cabinet. A dipole is a speaker cabinet that has speakers on the back as well as the front. The trick with a dipolar speaker is that as the cone on the front of the speaker moves forward (that is, outwards into the room), the cone on the rear of the cabinet is moving into the cabinet, away from the room.

Dipolar speakers have a very natural and realistic sound quality, because their sound has the same radiation pattern you'd experience if a real instrument was playing in your lounge room. The downside of dipolar operation is that there isn't much depth to the bass, because at low frequencies the high-pressure areas created by the front-mounted speaker are cancelled by the low-pressure areas caused by the rear-mounted speaker.

Bipolar speaker designs get around the bass problem by wiring the rear-firing speakers so they produce high-pressure areas in the room at the same time as the front speaker. So, instead of bass cancellation, the

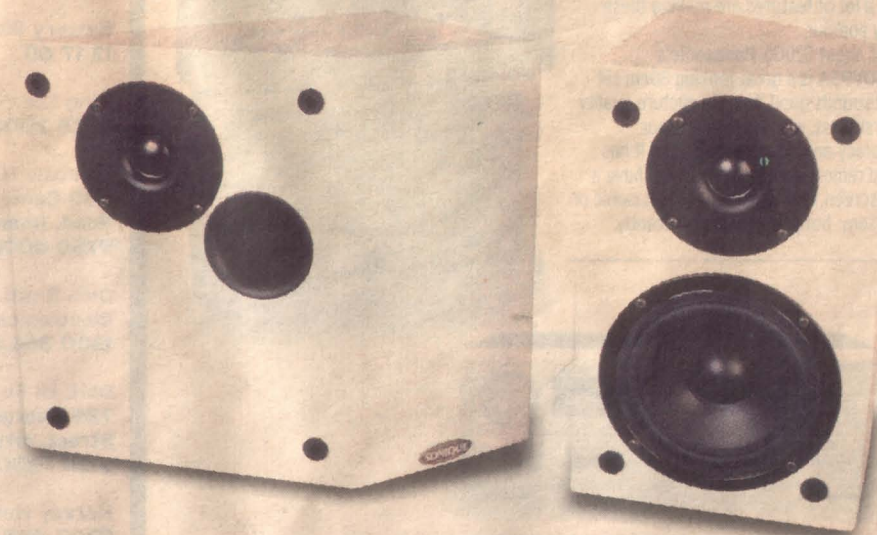
result is a 3dB increase in sound-pressure level at low frequencies.

Sonique's latest rear-channel speaker is an interesting and unusual design, because it can be switched between dipolar and bipolar operation. It's not a full-range dipole/bipole, however. Only the higher frequencies are radiated from both sides of the enclosure, by two tweeters. Bass and midrange frequencies are delivered by a single driver, and are thus monopolar.

The DB1s are wedge-shaped, with the bass/midrange driver and one tweeter fixed to the angled part of the wedge. The other tweeter and a bass-reflex port are on the end of the wedge. Both tweeters have 25mm fabric domes and are magnetically shielded. Also shielded is the 147mm-diameter bass/midrange driver.

Switching between dipolar and bipolar operation is managed with a small rocker switch fitted to the rear-mounted speaker terminal plate. Switched to the left, the two tweeters operate in bipolar mode; switched to the right, the speaker becomes dipolar.

In The Guide's listening sessions, it soon became obvious that the best position for the switch depends mostly on where the speakers are positioned in the room, as well



as what the speakers are being used for. Watching movies, the bipolar position gave the best sound, whereas with multi-channel audio our preference was for dipolar operation. Switching back and forth is feasible, but the location of the switch on the rear panel makes this awkward.

In either mode, the Sonique DB1s were easily among the best surround-sound speakers we have heard and the angled cabinet and dual-mode operation will guarantee great results in any room.

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Sonique DB1 Dipolar/Bipolar Surround Speakers

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