

EDIFIER®

e30 SPINNAKER
2.0/2.1 Multimedia Audio Speaker System

Explanations of Spinnaker Attributes...

Tri-amping is the practice of connecting three audio amplifiers to a loudspeaker unit: one to power the bass driver (woofer), one to power the mid-range and the third to power the treble driver (tweeter). A single amplifier can usually power a woofer, mid and tweeter only through a crossover filter, which protects each driver from signals outside its frequency range.

However, the crossover itself wastes power, so tri-amping is a way to avoid this problem. The technique is primarily used in large-scale audio applications such as sound amplification for concerts, in portable powered speakers and by hi-fi enthusiasts.



Possible phase shifts from a passive crossover are eliminated by using DSP electronic crossovers within the Spinnaker's amplifiers. In addition, we free up valuable internal space within the Spinnaker by eliminating a fairly large passive crossover printed circuit board, with coils, capacitors and resistors. The more internal air volume we have, the better and deeper the bass can become.

Regarding the **shape** of the Spinnaker, its shape enhances the sound in several ways. Traditional small square boxes have a tendency to create internal standing waves and cavity resonances from the rear radiation of the attached loudspeaker driver. These left unchecked, can cause an audible "boxy" sounding coloration on voices and most types of music. By using a tapered cylindrical shape used on the Spinnaker, internal standing waves and resonances are unable to collect to a measurable degree in any one area within the enclosure, and in fact cancel themselves out at various frequencies.

Additionally, by introducing a strong aluminum frame, together with judicious use of internal damping materials, overall unwanted enclosure vibration and resonances are kept to an absolute minimum. These techniques combined, result in a considerable reduction of audible coloration, with a more lifelike and accurate sound presentation for the listener.