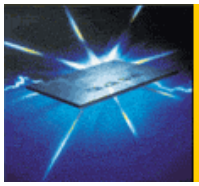

Technical Development of the BASE Vibration Control System

Necessity has always been the mother of invention and the development of BASE platforms fits into this category

Domestic requirements determined that a range of audio equipment should reside in a cabinet but sound quality could not be compromised and flexibility to accommodate the variously sized pieces of equipment was also necessary. A test bed cabinet was produced which went to great lengths to minimise resonance's which might be transmitted to height adjustable shelves. This left the problem of a device which would control vibration, particularly high energy bass frequencies, and yet be capable of accommodation within a shelf.

Drawing upon previous experience with the design of a theatre roof (seeking to minimise aircraft noise transmission with a light weight structure) the theory of a two stage system was employed. Firstly control energies within a narrow frequency band and then target those frequencies for further reduction.

The final design is very simple and robust, a metal beam spans between two support points and is isolated from the platform with a Sorbothane strip which has two functions. It provides a fast,strong damping factor to vibration within the beam and additionally provides effective high frequency isolation.The success of the system is readily demonstrated by removing the beam suspension points and relying upon the Sorbothane alone, this causes the majority of the sonic benefits to be immediately lost. MDF is frequently used where an acoustically "dead" material is required, however, densities and qualities vary considerably from different manufacturers and our platforms are closely specified to ensure consistent performance.

The compliance of the beam, degree of damping and relative masses were fine-tuned by ear in the final analysis to provide all of the sonic benefits with the totally natural, uncoloured sound unique to BASE. The Audio Supports are specifically designed to house the platforms where a rigid, sturdy, "non-ringing" structure is required to be of appropriate mass.

We have yet to find any item of electronics, whether active or passive, which does not benefit to some extent from BASE mounting. Developments within our own reference loudspeaker design have fully met our expectations!

The UK Patent (GB2277789), European and US Patents have been granted.

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