

epos



The ES11 is our compact loudspeaker for music lovers. Many advanced techniques have been brought to bear on its design and development, and much use made of new materials in its construction. But we have not allowed technology to take over the product. For us the ultimate goal is musical enjoyment, and technology is no more than a vehicle which helps us reach that goal.

DESIGN INTENTIONS

Our design brief was simple. We sought to develop a loudspeaker of compact size and affordable cost which would provide a high level of satisfaction for the listener who places music and not 'hi-fi' at the top of his priorities. We set about our task with no notion of making piecemeal advances in loudspeaker technology. Instead, we sought to produce a balanced design, with no undue

emphasis on any single aspect of performance. Only by carefully balancing the many conflicting requirements could we hope to ensure that our loudspeaker as a whole would be greater than the sum of its parts.

THE DRIVE UNITS

The ES11 utilises a 165mm bass driver and a 25mm tweeter. Both are brand new designs, developed specifically for the ES11.

The bass driver is built on a remarkably stiff and inert chassis which is injection moulded as an integral part of the loudspeaker's front baffle. The cone is thermo-formed from a stable polymer material and has a profile which was carefully developed to provide well-controlled axial and polar performance characteristics. A synthetic rubber roll surround with a high degree of hysteresis terminates the cone and minimises the generation of standing waves across the cone's surface.

The voice coil is wound on an aluminium former with high-temperature wire. A costly and labour-intensive wet-winding process using an extremely strong resin adhesive is employed in preference to the more common solvent bonding method. By wet winding we can be sure of producing a very rugged voice coil which will provide years of reliable service.

The ES11 has a phase plug protruding from the cone apex, rather than the more usual dust cap. The plug has a precisely contoured form which modifies the diffraction characteristics at the centre of the cone and provides better polar performance than would be possible with a dust cap.

The bass drive unit is completed by a magnet assembly with a centre pole extending considerably forward of the top plate. This serves to linearise the lines of magnetic flux which are cut by the voice coil as it moves outward from its rest position and helps ensure a low level of harmonic distortion.

Like big brother ES 14, the new ES11 bass driver has a precisely controlled bandwidth. The upper frequency roll-out is inherent in the mechanical design of the unit and no external crossover circuitry is required. This provides considerable benefits in control and transparency, with the driving amplifier being connected directly to the bass driver terminals.

The tweeter has a dome fabricated from aluminium alloy. Epos Acoustics are among the most experienced designers of metal dome tweeters and the ES11 profits from our accumulated knowledge. Every care has been taken to improve the linearity of this tweeter, every useful device employed to advance its performance to the state of the art.

A polyamide suspension locates the aluminium dome and provides the necessary restoring force, while the dome is acoustically loaded by a separate rear chamber. Vents in the voice coil former equalise the pressure on each side of the coil and help guard against asymmetric pressure distortion.

Magnetic fluid is introduced into the magnet gap to provide enhanced thermal transfer from the voice coil to the magnet system. This improves reliability and reduces dynamic compression.

The rugged nature of the tweeter, coupled with its good linearity at the lower end of its passband, enables operation with the minimum of external crossover circuitry: just one high-quality capacitor is present in the signal path. We believe that this approach to crossover network design helps in no small measure to enhance the loudspeaker's ability to resolve fine detail.

THE CABINET

The cabinet is a unique structure which utilises exceptionally rigid and inert injection mouldings for its front and rear baffles. The front baffle is moulded as an integral structure with the bass driver

chassis. This ensures that the coupling between the bass driver and the baffle is precisely and consistently defined, unlike conventional systems where the coupling is influenced by the varying tightness of fixing screws.

The front and rear baffles are tensioned by steel rods, with the 25mm-thick MDF cabinet wrap sandwiched between them. The resultant assembly is immensely rigid and free from troublesome resonant modes.

CONNECTIONS

Facilities for bi-wiring are provided on the ES11. Two pairs of high quality solid brass terminals allow separate cables to be used to connect the bass driver and tweeter to the driving amplifier, bringing enhanced control and resolution.

POWER REQUIREMENTS

Amplifiers rated at between 25 and 75 watts into 8 ohms will generally be found suitable for use with the ES11. More powerful amplifiers can be used with caution, but amplifiers capable of less than 25 watts are best avoided.

POSITIONING

The ES11 will give its best performance in most rooms when placed close to the back wall and at least 50cm from the nearest side wall. A space of about 20cm is required behind the loudspeaker to allow proper operation of the rear-firing reflex port.

The use of rigid stands is recommended, and purpose designed Epos stands are available.

SOUND QUALITY

The sound quality available from the ES11 can best be described by words such as revealing and involving. Transparency and definition are an inherent part of the ES11's character. Above all else, however, the ES11 is a loudspeaker with which you can relax. The reproduction of music for your enjoyment is its role in life.

AUDITIONING

The ES11 is available from a small number of enthusiastic and competent retailers who are at pains to demonstrate and sell complimentary equipment. It is most important to realise that combinations of the "best" or the most highly rated equipment do not necessarily make good systems. The advice of a good retailer is invaluable in helping to prevent money being wasted on unsuitable combinations of equipment.

The ES11, like any other piece of precision equipment, needs to be used correctly to achieve its intended performance. A judgement made of a loudspeaker with unwisely chosen partnering equipment, or in a poorly set-up system is no judgement at all.

Power Handling: 75 Watts speech and music.

Frequency Response: 60Hz – 20kHz

Impedance: 8 ohms Nominal

Sensitivity: 87dB/1 watt/1 metre

Finish: Black Ash or Walnut wood veneer

Dimensions: 375mm (H) x 200mm(W) x 250mm(D)

Weight: 8kg