

# epos



Epos Acoustics proudly announced the world launch of a new model, the ES12 loudspeaker, at Hi-Fi '96, New York. The speaker is available in two real wood veneer finishes, Dark Cherry and Light Cherry. The design remains faithful to the spirit of Epos with the emphasis on musicality and communication and follows closely the style of the successful ES22 model.

The ES12 features a brand new, aluminium dome tweeter designed in-house, using a high efficiency magnet system to improve sensitivity, transient response and reduce smearing. This improves imaging and enhances the pace, rhythm and timing characteristics that have become Epos hallmarks.

The newly developed bass/midrange driver has a new injection moulded cone piston, precision profiled to improve transient response and integration with the tweeter. The cabinet is a low diffraction design, eliminating secondary sources of sound, improving stereo imaging and detail resolution. Extensive internal bracing reduces cabinet colouration and a gas-flowed reflex port is used to reduce turbulence.

In true Epos tradition only one component is used in the crossover with the performance of the bass/mid driver being controlled mechanically. This results in a level of detail, resolution and communication unheard in a loudspeaker of this class.

Graeme Foy, Development Engineer, says, "The ES12 is the latest in a remarkable line of Epos loudspeakers, using sound engineering principles to good effect. I am extremely pleased with the end result and am confident that other music lovers will agree."

### Bass/Midrange Driver

**New injection moulded polymer cone** A unique profile ensures the neck region is stiffer than the outer edge of the cone improving midrange performance and integration with the tweeter. This also ensures consistency of production and improved transient response.

**New Polypropylene cone** This provides low hysteresis distortion allowing high levels of clean reproduction.

**Nitrile rubber surround** The surround minimises hysteresis distortion and improves linearity of the drive unit.

**New high temperature 32mm voice coil** Gives improved heat dissipation, power handling and dynamics.

**Phase plug** This device improves midrange dispersion and integration with the tweeter. It reduces distortion by equalising air pressure at the magnet pole. **Mica filled polymer chassis** This improves drive unit linearity by rigidly coupling the motor unit and driver assembly, which improves transient response and detail resolution. **Extended magnet pole** This linearises the magnetic flux field reducing distortion and improving dynamics.

### Tweeter

**25mm aluminium dome** Gives excellent heat dissipation improving power handling. Its high stiffness to mass ratio moves the resonant frequency beyond audible bandwidth reducing harmonic distortion.

**Nitrile suspension** Has excellent termination characteristics resulting in low drive unit colouration.

**Vented voice coil** Venting prevents asymmetric pressure distortion, improving linearity, and lowering drive unit resonance substantially below crossover point. Improves heat dissipation characteristics increasing power handling.

**Magnetic liquid cooling** Gives increased power handling, controlled resonance characteristics and increased efficiency. Improves linearity of impedance characteristics giving an easier amplifier load.

**New high efficiency magnet system** This system increases sensitivity, maintaining system balance, improving pace, rhythm and timing. **Optimised tweeter grille** Design maximises transparency and openness.

### Cabinet

**Optimum material choice** Uses a combination of complimentary materials with mutually dissimilar resonant frequencies to increase structural integrity and reduce cabinet colouration.

**Extensive internal bracing** A highly rigid design with optimally positioned bracing discourages formation of front-to-back and top-to-bottom standing waves and reducing cabinet colouration. This allows the listener to hear more of the music. **Dedicated moulding** increases rigidity of tweeter mounting improving high frequency resolution, transient response and stereo imaging.

**Mica filled polymer front baffle** This rigid structure with excellent self-damping properties reduces cabinet colouration.

**Gas-flowed port flare** Smooths transitional loading of air mass within port reducing distortion created by port turbulence noise, or “chuffing”. **Optimised port positioning** Minimises high frequency internal nodal standing wave output, optimising output of the port reducing smearing and improving detail resolution. **Low diffraction design** Reduces diffraction improving imaging, midband and treble performance. **Eliminates secondary sources** ensuring phase cancellations are minimised.

**Acoustically transparent grille** This increases the speaker’s domestic acceptability without affecting its acoustic performance.

### Crossover

**Minimalist** Minimising components between the drive unit and amplifier improves the signal path enabling the listener to hear more of the music. **Bass driver crossover** achieved mechanically without electrical network Allows direct coupling between drive unit and source eliminating insertion losses and associated electrical distortion, again allowing more of the signal to be heard.

**Tweeter 6dB/8ve** Matches the roll-up of the tweeter to the mechanical roll-out of the midrange driver improving integration and stereo imaging. **Bi-wireable** Bi-wire connections improve the signal path giving benefits in soundstaging. **Separates earth paths** ensuring that any back-EMF produced is not transmitted to other drive units. **Hardwired internal connections** These retain maximum signal path integrity from amplifier to drivers allowing more of the signal to be heard.

**Gold plated high performance terminals** High current rating and excellent electrical performance give improved signal path enabling the listener to hear more of the music.

**Power Handling** 75 Watts speech and music

**Frequency Response** 60Hz – 20kHz

**Impedance** 8 ohms Nominal

**Sensitivity** 88dB/1 watt/1 metre

**Bass Driver** 150mm injection moulded polymer cone with 32mm high power voice coil. Inert polymer moulded chassis integral with front baffle

**Tweeter** 25mm aluminium dome with high efficiency magnet system

**Crossover** Bass driver crossover achieved by mechanical design and without electrical network.

6dB/octave on tweeter

**Cabinet** 24mm MDF wrap with extensive internal bracing. Inert polymer moulded front baffle and rear panel

**Finish** Light Cherry or Dark Cherry wood veneer

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

**Weight** 8.8kg