

# EVO2

Hi-Fi and Home Cinema Loudspeakers



*Wharfedale*



# INTRODUCTION

Wharfedale has always been at the leading edge of development in acoustic science. New technologies and materials create new opportunities to push the boundaries of music reproduction. Whilst the loudspeaker is often regarded as the weakest link in any system, we develop loudspeaker systems capable of extracting the best from any hi-fi - loudspeakers that will continue to improve as you upgrade the rest of your system.

EVO<sup>2</sup> is the successor to the highly acclaimed evolution series of loudspeakers. Although the lineage is obvious, every internal component has been updated and

improved to create a loudspeaker series which can justifiably be called 'state-of-the-art' in every respect.

Improvements to both high-frequency response and bass dynamic attack have been allied with an overall improvement in cohesion between all the drive units. The resulting performance is nothing short of breathtaking.

Engineered to the very highest standards and finished using real wood veneers, EVO<sup>2</sup> will deliver a consistently high standard of reproduction for many years. Something that generations of Wharfedale owners have grown to appreciate.

# EVO

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## MATERIALS AND PERFORMANCE

Whilst the cabinet of the original Evolution was, and still is, one of the most inert and resonance free enclosures of its type, every internal component has been improved and updated to enhance performance.

The type of material used in each component of the speaker system plays a big part in the overall performance. Our team of research engineers is constantly reviewing each and every material we use to see if improvements can be made.

KEVLAR® is used for the bass and mid-range driver. Woven into a three dimensional lattice, the raw KEVLAR® is resin-impregnated to form a structure which is both stiff and light. This minimises distortions of the cone even under extreme dynamics. A new resin has been developed which helps to suppress the transverse waves which ripple out from the centre of the cone on impulse and can lead to distortion.

A new textile for the dome tweeter, which is faster and lighter than previous materials, means the capacity of wider bandwidth. Combined with an improved

voice coil and stronger, shielded magnets, the result is a more open soundstage and improved imaging.

We now use fully shielded magnet assemblies for completely safe use next to conventional televisions and monitors. High-gauss neodymium is used in the tweeter because of its exceptional field strength and compact size.



*Wharfedale*  
**Evolution<sup>2</sup>-30**

POWER HANDLING 25-250 WATTS  
NOMINAL IMPEDANCE 8 OHMS  
SENSITIVITY (1W/1M) 89 dB

SERIAL NO.  
E234000053N

CE  
WHARFEDALE LTD. PO25 5NU MIDGLAS  
MADE IN ENGLAND



## BUILD & QUALITY

EVO<sup>2</sup> uses a curved cabinet design that has been inherited from its predecessor - although new production techniques mean that it is now stronger than ever. Heavily braced internal, using transverse, oblique and longitudinal beams, this cabinet has extremely low resonance, so remaining sonically neutral at all times.

The internal curves and an oblique brace mean there are no parallel sides within the cabinet, In conventional speakers, the parallel sides cause standing waves which add a 'drone' to the sound. The curves of the EVO<sup>2</sup> cabinets prevent these standing waves from forming and lead to a tight and tuneful bass - removing the 'single note' effect.

Because we make everything ourselves, from the cabinet to the PCB's of the crossover, we are able to ensure the quality of every single constituent part. For example, each bass and mid-range driver in the series uses an open-back cast alloy chassis optimised to its particular frequency requirements.

The attention to detail is complete: even to the extent of the gold-plated, offset and shielded bi-wire terminals. Internal cables are all high-grade multi-strand oxygen-free copper. The tweeter plate, terminal plate and driver trim-rings are all cast alloy. Even the spikes are mounted using a clamping method which effectively decouples them from the cabinet - minimising the energy transfer.

# EVO<sup>2</sup>





## HIGH FREQUENCY ACCURACY

A new tweeter with an aluminium voice coil had been developed for the EVO<sup>2</sup>. With a wider bandwidth than the previous model, the new unit is capable of extracting the best from the latest high-resolution audio formats.

Because of its improved thermal properties, the new tweeter is also capable of higher output. A cooling heat-sink has been added to ensure the tweeter can be driven hard, yet always remain within the optimum operating temperature.

The maximum excursion of the tweeter had been increased, largely because of the improved control capabilities of the magnet assembly and voice coil. Acoustically this provides a distinct performance advantage - specifically producing better leading-edge detail and crisper, faster response.

The entire tweeter is then decoupled from the cabinet, housed in a cast alloy mounting plate which itself is curved to provide an optimum dispersion characteristic.



# EVOLUTION

*Wharfedale*

**Evolution2**

High performance super-linear transducer

**MODEL 0367**

Designed and Engineered in  
Cambridge - England



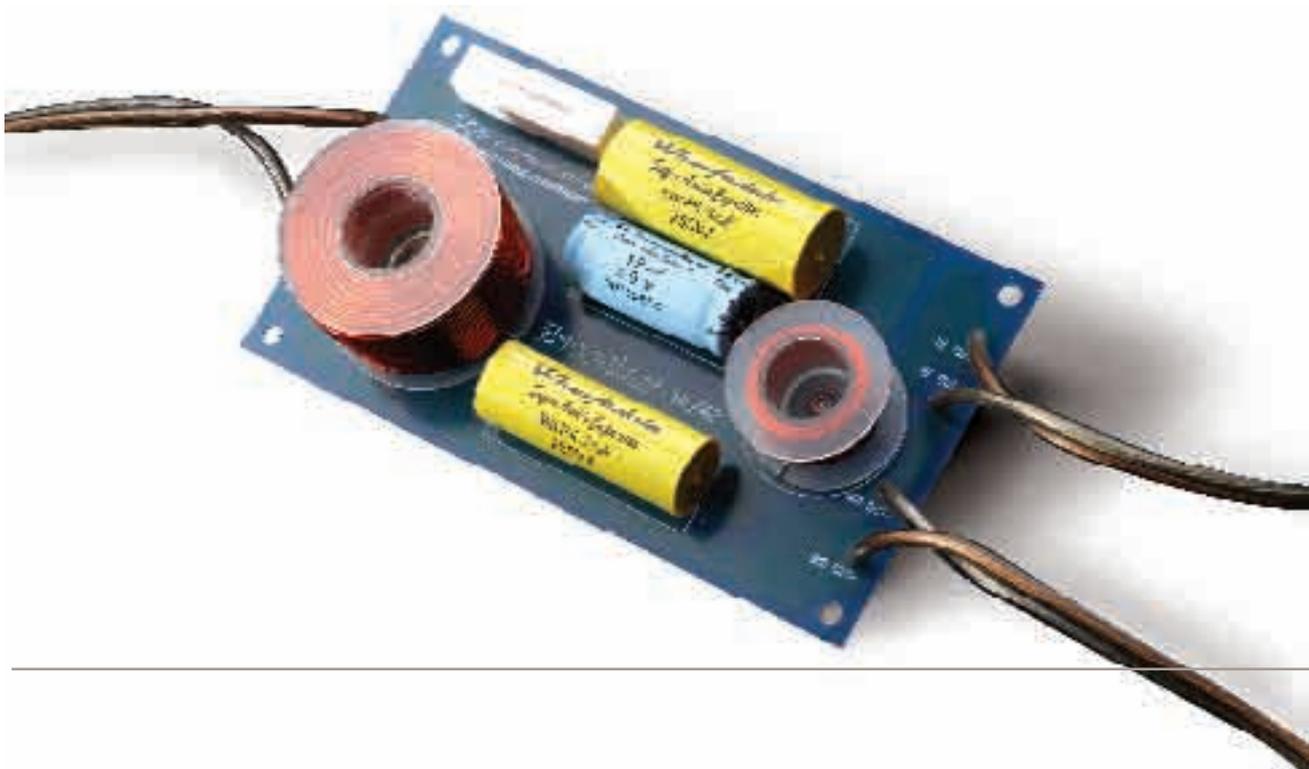
## CROSSOVER

Possibly the most radical overhaul of the original Evolution has been in the area of the crossover. In 2004, Wharfedale began to produce capacitors in-house - designs which meet the highest standards of audiophile performance yet which, when produced in-house, add nothing to the overall cost of the products.

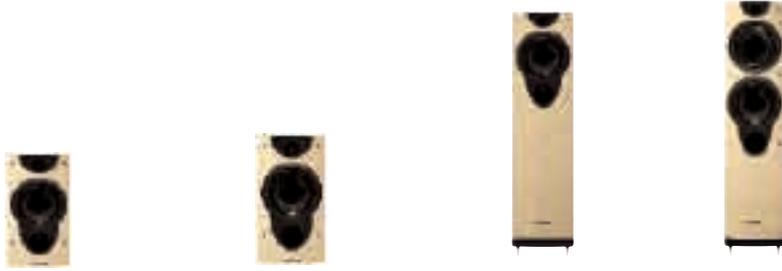
Our philosophy on crossovers however, is consistent. Because we manufacture every drive unit and cabinet under one roof, each product is designed with perfect synergy. There is no need for complex electrical correction which could upset mid-range performance. Instead we use as simple a configuration as possible.

This ensures the signal path is clean and free from artifacts. This philosophy is largely responsible for the cleanliness of mid-range and wide, open soundstage that our products are famous for.

To maximise the performance of our new capacitors in operation, they are partnered with high quality air-cored chokes and mounted on the PCB in a way to minimise magnetic interference between components. Furthermore, the bass and treble portions of the crossover are separated - again to further reduce the effects of magnetic interaction. The boards are tee-nut mounted onto wooden runners in the cabinet which ensures a square placement and minimal vibration.



## SPECIFICATIONS



Model	EVO2-8	EVO2-10	EVO2-20	EVO2-30
Bass Driver	5" - 125mm	6.5" - 165mm	6.5" - 165mm	6.5" - 165mm
Mid-range	-	-	6.5" - 165mm	6.5" - 165mm
Tweeter	1" - 25mm	1" - 25mm	1" - 25mm	1" - 25mm
Nominal Impedance	6 Ohms*	6 Ohms*	6 Ohms*	6 Ohms*
Frequency Response +/- 3dB	65Hz - 28kHz	57Hz - 28kHz	50Hz - 28kHz	35Hz - 28kHz
SPL 1W @ 1m	87dB	87dB	87dB	87dB
Power	75 Watts	100 Watts	100 Watts	125 Watts
Recommended Amp	30-150W	30-200W	40-200W	50-250W
Max Peak SPL	107dB	109dB	109dB	111dB
System Fb	50Hz	50Hz	40Hz	35Hz
Crossover Frequencies	2.0kHz	2.2kHz	2.2kHz	150Hz - 2.2kHz
Dimensions (hxwxd) mm	300 x 185 x 336	380 x 227 x 356	890 x 227 x 356	920 x 229 x 400
Net Weight	7.0kg x 2	8.1kg x 2	15.5kg x 2	20.8kg

## FINISHES



Model	EVO2-40	EVO2-50	EVO2-Centre	EVO2-DFS
Bass Driver	6.5" - 165mm	6.5" - 165mm	5" - 25mm x 2	5" - 25mm x 2
Mid-range	6.5" - 165mm	6.5" - 165mm	-	-
	-	2" - 50mm	-	-
Tweeter	1" - 25mm	1" - 25mm	1" - 25mm	1" - 25mm
Nominal Impedance	6 Ohms*	6 Ohms*	6 Ohms*	6 Ohms*
Frequency Response +/- 3dB	30Hz - 28kHz	30Hz - 28kHz	90Hz - 35kHz	60Hz - 32kHz
SPL 1W @ 1m	89dB	89dB	89dB	88dB
Power	150 Watts	150 Watts	100 Watts	100 Watts
Recommended Amp	50-300W	50-300W	30-200W	30-200W
Max Peak SPL	112dB	113dB	111dB	108dB
System Fb	35Hz	30Hz	90Hz	70Hz
Crossover Frequencies	150Hz - 2.2kHz	150Hz, 1.3kHz, 6.5kHz	2.4kHz	3.0kHz
Dimensions (hxwxd) mm	1110 x 229 x 400	1130 x 229 x 400	185 x 420 x 300	428 x 425 x 400
Net Weight	24.0kg	25.6kg	8.95kg x 2	4.7kg x 2



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