

CR2

CRYSTAL LOUDSPEAKERS



Wharfedale



CR2

CRYSTAL HI-FI & HOME CINEMA

INTRODUCTION

Wharfedale has been designing fine loudspeakers since 1932. Since those early days, Wharfedale has led the field in acoustic research and development, and today is one of the largest and most vertically integrated audio manufacturers in the world.

Making all parts of the loudspeaker – cabinet, drivers, crossovers; even the terminals and spikes – all under one roof means we can deliver unbeatable value and performance. Every loudspeaker is engineered by leading UK experts, with decades of award-winning products behind

them. This, coupled with state-of-the-art manufacturing and materials enables us to remain at the very forefront of audio engineering.

Crystal 2 from Wharfedale is a sparkling and dynamic range of loudspeakers designed to get the very best from your stereo or home cinema system. Using drive unit technology usually reserved for very high-end loudspeakers, Crystal 2 achieves power and performance beyond its modest size – capable of delivering breathtaking results from even modest amplification.



stereo

HI-FI PERFORMANCE

Good hi-fi should accurately reproduce the music signal without adding or removing anything. An overblown bass or emphasized treble can sound impressive in the demonstration room, but will quickly fatigue the human ear. The best balance is to be found in nature – an even and flat response that sounds, first and foremost, 'natural'.

It is with this in mind that Crystal 2 has been developed. A neutral balance, capable of releasing the real beauty of music without added

emphasis or colouration is the aim. A natural performance, relaxing and absorbing in its clarity and fluidity is the result.

Crystal 2 is for those that value good music and delivery rather than ponderous bass and ear-splitting high-frequencies. Our aim is not to 'instantly' impress, but to manufacture loudspeakers which deliver consistently high standards of reproduction in a way this is enjoyable for years to come.





CR2

DRIVER TECHNOLOGY

The newest cone material from Wharfedale is nothing short of a revolution in hi-fi terms. A material that when formed, exhibits incredible strength, impact resistance, has better self-damping properties than KEVLAR and yet is lightweight, affordable and recyclable.

The cone is manufactured from a material known as 'Vantax'. It's a woven polypropylene compacted under extremes of temperature and pressure until a solid skin forms over the fluid interior. The resultant cone has the requisite stiffness, but also exceptional self-damping properties to prevent 'overhang' or 'ringing'.

The high-frequency driver is a 25mm textile dome driver. Fast and agile, it

can track the music signal accurately with minimal inertia resulting in a deep and fulfilling soundstage, startling clarity and pin-point accuracy.

Because each drive unit is unique to the model of loudspeaker it is designed for, the individual elements are matched with each other for perfect synergy. The cabinet, crossover and drive units work together to produce a uniform and well integrated frequency response without the need for complex correction techniques which can introduce their own problems.

When all the elements are pulling together, a flowing, natural sound is far easier to achieve and this approach is exemplified in Crystal 2



Wharfedale

design

CONSTRUCTION & MATERIALS

Since the invention of the cone driver, over seventy years ago, the quest for newer and better materials has continued. The discovery of high strength to weight ratio polymers such as polypropylene advanced the study significantly but the problem has always been the compromise between stiffness and weight.

Whilst polypropylene as a fibre has excellent tensile strength, when it is formed into a cone using conventional construction methods, the overall shape has certain weaknesses. Under the stress of highly dynamic music, where a cone can be travelling accelerating or decelerating at incredible rates, cone

distortions can occur which impact negatively on the sound purity.

Our latest 'HCWPP' cone technology mixes the superior strength to weight ratio of fibre braid materials such as KEVLAR with revolutionary self-damping properties never previously available in a single, recyclable material. The HCWPP (Hot Compacted Woven Polypropylene) process forms a material consisting of aligned polypropylene fibres in a matrix of thermoformed polypropylene. The new cone material consists of approximately 80% molecularly aligned fibres in a matrix of 20% polypropylene resulting from melting and cooling the "skins" of the fibres.



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CRYSTAL 2

HOME CINEMA

A good, natural, 'hi-fi' performance is even more important when considering a home cinema system. Crystal 2 is available in a number of configurations, and is tonally matched, allowing you to mix and match various loudspeakers within the range to fit your room and requirements.

A dedicated centre channel is possible the most important speaker in a home cinema system, responsible for around 80% of all dialogue. We have paid particular attention to

the Crystal 2 centre to ensure it sounds 'immediate' - 'in-the-room' with the same natural balance and a wide dispersion, allowing multiple listeners to experience the same, rich sound-field as everyone else in the room.

The smaller bookshelf speakers: CR2-8's are easily mountable on rear or side walls without the need for brackets and provide an expansive sound field so you can become full immersed in the drama of your favourite films.





SPECIFICATIONS



Model	CR2 - 8	CR2 - 10	CR2 - 20	CR2 - 30
Bass Driver	100mm	125mm	165mm	165mm
Auxiliary Bass Radiator	-	-	-	165mm
Midrange Driver	-	-	-	-
Tweeter	25mm Textile	25mm Textile	25mm Textile	25mm Textile
Power	60 Watts	100 Watts	100 Watts	100 Watts
Nominal Impedance	6 Ohms	6 Ohms	6 Ohms	6 Ohms
Recommended Amplifier	25 - 60 Watts	25 - 100 Watts	25 - 100 Watts	25 - 100 Watts
Sensitivity 1W @ 1m	84dB	86dB	86dB	86dB
Frequency Response	60 - 20 kHz	55 - 20 kHz	50 - 20 kHz	40 - 20 kHz
Crossover Frequency	2.2kHz	2.2kHz	2.2kHz	2.2kHz
Dimensions (HxWxD) mm	207 x 149 x 161	277 x 192 x 234	450 x 217 x 236	832 x 217 x 236



Model	CR2 - 40	CR2 - CEN	CR2 - SUB
Bass Driver	165mm	100mm	250mm
Auxiliary Bass Radiator	-	-	
Midrange Driver	165mm b/m	-	
Tweeter	25mm Textile	25mm Textile	
Power	150 Watts	100 Watts	
Nominal Impedance	6 Ohms	6 Ohms	
Recommended Amplifier	25 - 60 Watts	25 - 100 Watts	
Sensitivity 1W @ 1m	86dB	86dB	
Frequency Response	30 - 20 kHz	60 - 20 kHz	
Crossover Frequency	200, 2.2kHz	2.5kHz	
Dimensions (HxWxD) mm	975 x 217 x 236	149 x 362 x 160	
			Bass Driver 250mm Amplifier Power 150W Line Input Sensitivity 250mv for 75W Freq Range -6dB 28Hz - 170Hz Average Max o/p @ 1m 108dB Crossover Range 70Hz - 170Hz Facilities Manual Control, Variable low filter phase reverse, Auto power select, Dual phono inputs and outputs. Dimensions (hxwxd) mm 390 x 368 x 385



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