

# DIAMOND 12 Series

*Only a Diamond cuts to the heart of the music*

 W H A R F E D A L E



*\*available in black, white, light oak and walnut*

## Availability

Order:	September 2020
Shipping:	October 2020

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## Overview

In the early 1980s, **Wharfedale** created the blueprint for modern 'budget' hi-fi speakers when it made the first-ever DIAMOND. Through successive generations, the **Wharfedale** DIAMOND has remained the most famous name in budget hi-fi speakers worldwide. The launch of a new DIAMOND range is always a major hi-fi event and this campaign will introduce the latest generation of DIAMOND loudspeakers to the world.

The **Wharfedale** DIAMOND line is "one of the most successful speaker ranges of all time" (according to What Hi-Fi?). It's also one of the most enduring – there have been **Wharfedale** DIAMOND speakers on the market for the past 38 years, updated from one generation to the next.

Many DIAMOND models have won awards over the years – since the turn of the millennium, the DIAMOND 8 Series, DIAMOND 9 Series, DIAMOND 10 Series and DIAMOND 200 Series have all yielded What Hi-Fi? Award-winners.

But the all-new **DIAMOND 12 Series** is the best DIAMOND range yet! Developed in collaboration with Karl-Heinz Fink – one of the most successful loudspeaker designers on the planet. Classic DIAMOND price points, industrial design that's cool and contemporary yet still distinctly **Wharfedale**, and sound that delivers a new 'budget' benchmark through exceptional acoustic design and engineering.



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## Key Features

### Klarity affords focus

NEW Klarity™ cone material, formulated from a blend of Polypropylene and mica adds stiffness to reduce flexing, enabling a lightweight cone with high rigidity, low colouration and lightning-fast response.

### Low colour and expression

The Klarity™ cone is fitted with a low-damping surround, thereby achieving both low colouration and expressive dynamics. By simulating many different cone shapes and adding ribs to provide further stiffening, a flat response curve was achieved without resorting to a high-damping surround, thereby striking the ideal balance.

### A magnet of forces

A precision-made magnet system with an aluminium compensation ring to minimise the effect of variations in inductance as the voice coil travels. This contributes to an absence of distortion and intermodulation generated by the 'motor system'.

### A voice coil beyond this class

The voice coil is wound on a high-power epoxy/glass fibre bobbin – highly unusual in speakers at this price level. This has the advantage of not adding eddy currents and delivering greater power handling than an aluminium bobbin, whilst also being much stiffer than the Kapton type associated with this price-class.




### DIAMOND highs

The 25mm dome is made from a woven polyester film with a high-loss coating to deliver open and smoothly extended high frequencies. The magnet system and the front plate have been optimised for wide dispersion and uncompressed behaviour. The front plate is flat and exposes the dome as much as possible; only a very short duct on the front plate balances the acoustic load and improves the SPL (sound pressure level) measurement.



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 WHARFEDALE

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## A crossover of style

The crossover network uses an acoustic LKR 24dB topology. This includes air core inductors of the type more commonly found in high-end speakers, selected because they produce the lowest distortion of all inductor types. As the resistance of the coil is higher than a standard laminated steel or ferrite core inductor, the magnetic structure of the mid/bass driver has been modified to compensate, resulting in fast, clean bass with no distortion from the inductor.

## Firm and fair

The **DIAMOND 12.1**'s rear-ported enclosure is precisely sized so that the internal volume works in harmony with the drive unit system to deliver the desired sonic result. A multi-layered sandwich design subdues the identifiable characteristics of the cabinet's 'sound'. Even the resonant properties of the glue between the layers was measured to determine the optimum combination.

## Brace oneself

Inside the cabinet, Intelligent Spot Bracing connects opposite walls with a specific form of wood brace to achieve optimal reduction of cabinet resonance. These braces are precisely modelled by computer simulation to improve upon the commonplace 'figure of eight' brace, which may simply transfer resonance from one wall to another.

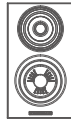
## Always on trend

Finished in a choice of black, white, light oak or walnut.



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## Specifications



Model	DIAMOND 12.0	DIAMOND 12.1	DIAMOND 12.2	DIAMOND 12.C
General description	2-way bookshelf speaker	2-way bookshelf speaker	2-way bookshelf speaker	2-way centre speaker
Enclosure type	bass reflex	bass reflex	bass reflex	closed-box system
Transducer complement	2-way	2-way	2-way	2-way
Bass driver	4"(100mm) advanced PP Cone	5"(130mm) advanced PP Cone	6.5"(150mm) advanced PP Cone	5"(130mm) advanced PP Cone x2
Treble driver	1"(25mm) Textile Dome	1"(25mm) Textile Dome	1"(25mm) Textile Dome	1"(25mm) Textile Dome
AV shield	No	No	No	No
Sensitivity(2.83V @ 1m)	87dB	88dB	88dB	90dB
Recommended amplifier power	20-60W	20-100W	20-120W	20-120W
Peak SPL	95dB	96dB	96dB	96dB
Nominal impedance	8Ω Compatible	8Ω Compatible	8Ω Compatible	8Ω Compatible
Minimum impedance	4.0Ω	4.0Ω	4.0Ω	4.0Ω
Frequency response(+/-3dB)	70Hz - 20kHz	65Hz-20kHz	50Hz - 20kHz	90Hz - 20kHz
Bass extension(-6dB)	65Hz	60Hz	43Hz	80Hz
Crossover frequency	2.7kHz	2.6kHz	2.0kHz	2.2kHz
Cabinet Volume (in litres)	4.4L	8.2L	11.8L	8.7L
Dimensions (H x W x D)	265 x 160 x (200+28) mm	312 x 180mm x (250+28) mm	335 x 200 x (285+28) mm	180 x 480 x (180+28) mm
Net weight	5.1kg/pcs	6.8kg/pcs	8.2kg/pcs	8.5kg/pcs



Model	DIAMOND 12.3	DIAMOND 12.4
General description	2.5-way floorstanding speaker	2.5-way floorstanding speaker
Enclosure type	bass reflex	bass reflex
Bass driver	5"(130mm) advanced PP Cone	6.5"(150mm) advanced PP Cone
Midrange driver	5"(130mm) advanced PP Cone	6.5"(150mm) advanced PP Cone
Treble driver	1"(25mm) Textile Dome	1"(25mm) Textile Dome
AV shield	No	No
Sensitivity(2.83V @ 1m)	89dB	89dB
Recommended amplifier power	30-150W	30-200W
Peak SPL	102dB	102dB
Nominal impedance	8Ω Compatible	8Ω Compatible
Minimum impedance	5.0Ω	5.0Ω
Frequency response(+/-3dB)	45Hz - 20kHz	40Hz - 20kHz
Bass extension(-6dB)	40Hz	35Hz
Crossover frequency	2.2kHz	2.1kHz
Cabinet Volume (in litres)	26.6L	40.8L
Dimensions (H x W x D)	(925+50) x 180 x (320+28) mm	(1100+50) x 200 x (350+28) mm
Net weight	19.5kg/pcs	22.4kg/pcs



white



light oak

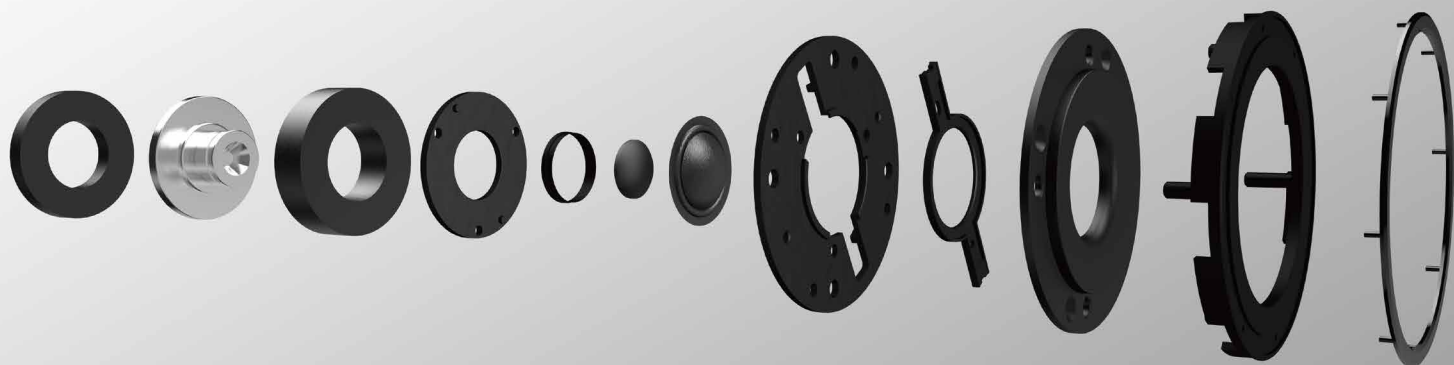


walnut

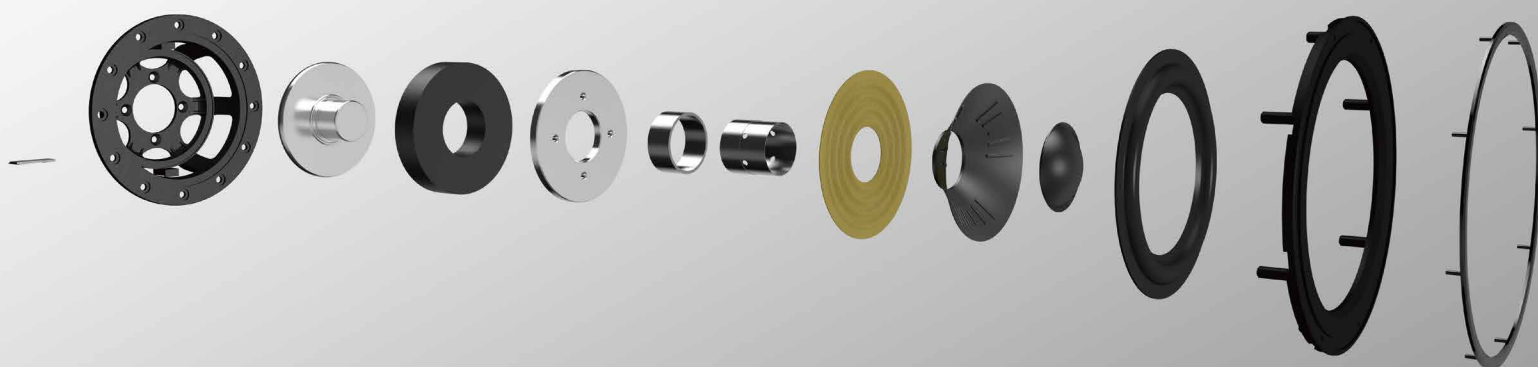


black

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*Above: Architecture exploded diagram for DIAMOND Treble Unit*



*Above: Architecture exploded diagram for Klarity™ Bass Unit*



# DIAMOND 12 Series *Only a Diamond cuts to the heart of the music*



*Above: Bookshelf DIAMOND 12.1 in WALNUT finishes*



*Above: DIAMOND 12 Series in WALNUT finishes*