

FIBONACCI SERIES USER MANUAL Dear Valued Customer,

To the cognoscenti of British high-performance audio, the Wilson Benesch marque is recognised as one of the world's leading loudspeaker design and manufacturing companies. We are honoured that you have chosen a Fibonacci Series product for your personal audio system. Our team of engineers, craftspeople and designers have devoted every effort to manufacture this reference class product, and we are extremely proud to present it to you. Our products are engineered to last a lifetime, and we wish you many hours of enjoyment from your music collection with a Wilson Benesch Loudspeaker at the heart of the system.

Before starting your journey, we encourage you to pay special attention to the information contained in this manual. All Fibonacci Series products have been designed and built with precision. However, to extract maximum performance from the product, it is critical that it is setup correctly. Should you have any questions or require assistance, please do not hesitate to contact your authorised dealer or distributor.

On behalf of all the Team at Wilson Benesch,

Craig Milnes, Design Director

Christina Milnes, Managing Director

Products that this manual includes:

Discovery 3zero Horizon A.C.T. 3zero Endeavour 3zero Resolution 3zero Omnium Eminence

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1.0 Product Registration

Please register your Wilson Benesch product within one (1) year of receipt to receive your full five (5) year warranty. Wilson Benesch records the loudspeaker's release date from its factory as the official start of the product warranty. Registrations made after the first year will receive only a one-year limited warranty.

All warranty conditions are detailed in section 5.0 - Limited Warranty. Please refer to the terms and conditions at the back of this manual for further information.

Product registration can be completed online via the following link: <u>https://wilson-benesch.com/product-registration/</u> or by scanning the QR code below. Please ensure all fields are fully completed to validate your product warranty.



2.0 Product Safety Information

Important: Read Before Unboxing

A Product Safety Card is provided in every loudspeaker box. Please read it in full before unboxing the product.

Handling & Installation

- Two-person handling required: Wilson Benesch strongly recommends that at least two capable individuals handle the unboxing and installation.
- Remove all jewellery and watches before handling the product to prevent accidental damage.
- Use correct lifting techniques to avoid injury. Ensure proper posture when lifting or moving heavy items.

Surface Finish Protection

Wilson Benesch loudspeakers feature high-quality, precision-engineered finishes. To maintain their appearance and longevity:

- Avoid direct sunlight exposure at all times. UV light can cause damage to the surface finishes over time.
- Do not use chemicals or abrasive cleaning products on the surface. If cleaning is necessary, use a soft, dry cloth.
- The drive unit's rubber surrounds may develop a white discolouration over time due to a natural reaction to airborne pollutants. This can be removed by gently wiping with a soft cloth dampened with a small amount of distilled water. Ensure no water residue remains on the drive unit or its fixings—everything should be completely dry after cleaning.

Magnet Safety

These loudspeakers contain powerful rare-earth magnets within the drive units, grilles, and other areas.

- Users with pacemakers or other medical implants must exercise caution around these magnets.
- Keep magnets away from sensitive electronic devices to prevent interference or damage.

Sharp Components

• This product includes sharp elements, such as product spikes. Handle with care to prevent injury.

Choking Hazard & Packaging Safety

- The packaging contains small parts that pose a choking hazard.
- Plastic wrapping and small components should be kept out of reach of children at all times.
- Do not allow children to access the packaging or product during installation.

Clay Desiccant Safety

To protect against moisture during shipment, clay desiccant is included in the packaging.

- Do not consume the desiccant.
- Always wash your hands after handling the desiccant packets.
- Keep out of reach of children.

Final Reminder

Before proceeding, please ensure that you have read and understood this safety information. Refer to the full product manual for detailed setup and handling instructions.

3.0 The Importance of Running-In Your Fibonacci Series Loudspeakers (500-hours / 21-days / 3-weeks)

The sound quality of your Fibonacci Series loudspeakers will improve significantly over time. However, the most noticeable changes in performance occur during what is commonly known as the running-in or burn-in period.

Wilson Benesch recommends at least 500 hours (21 days) of continuous use at a low to medium volume before making fine adjustments to the loudspeakers' positioning. By this stage, changes in acoustic performance should be minimal, allowing for a fixed placement in your listening space.

Why Do We Strongly Recommend Burn-In?

The drive units are mechanical components that require a settling-in period, much like the engine in a new car. Once burned in and used, they will achieve their optimal performance.

Key elements within the drive unit, such as the spider and diaphragm, need to move under low to medium volume levels to become more compliant and reach a stable resting state. This process ensures long-term consistency in performance.

Additionally, the loudspeaker enclosure is a hybrid construction made from multiple materials, including aluminium. It must also acclimatise and settle into the ambient environment after unpacking for optimal sound reproduction.

Eminence . . . ٠ • . ٠ ٠ • . ٠ ٠ Omnium • • • • ٠ ٠ ٠ • ٠ ٠ ٠ ٠ ٠ ٠ ٠ ٠ Resolution 3Zero . . • ٠ ٠ . • ٠ ٠ A.C.T. 3Zero • • . • • ٠ ٠ ٠ Endcavour 3Zero . . ٠ ٠ . . ٠ ٠ ٠ ٠ ٠ Discovery 3Zero . ٠ ٠ ٠ ٠ ٠ ٠ • 1x 6mm Allen Key for installation / removal of 1x 5mm Allen Key for installation / removal of 3x Lifting Handles for Loudspeaker Top Box 4x Terminal Washers & Nuts 6x Kinematic Location Cups 8x Kinematic Location Cups Lx WB Spanner 13/22mm Ix 17mm Socket Wrench 1x 13mm Socket Wrench 4x Baffle Blanking Caps 2x Terminal Link Leads 2x Spine Blanking Caps 6x Spiked Terminations 8x Spiked Terminations 1x 10m Socket Wrench 2x Loudspeaker Covers 2x Product Grille(s) Product Manual 2x Port Bungs 1x Air Wedge foot plates port bung

4.0 What's in the Box

5.0 The Subject of Room Acoustics

Acoustics is a complex field, and this text serves as a simple yet informative guide. For a deeper understanding, we recommend consulting additional resources alongside basic measurement tools such as a tape measure, laser measure, and spirit level.

It is crucial to acknowledge the significant role that the room and its contents play in shaping the overall sound of an audio system. The air within the room acts as the medium between the loudspeaker's output and the listener's ear. How this air behaves depends on the room's characteristics. A fundamental understanding of acoustics will assist in making informed decisions regarding the initial installation and future optimisation of the system. We strongly recommend that customers work with their Wilson Benesch dealer for the final voicing and positioning of their loudspeakers.

Rooms generally fall between two acoustic extremes:

A 'dead' room is filled with highly absorbent materials that dampen acoustic energy.

A 'lively' room has a high proportion of non-absorbent, hard, and reflective surfaces.

A well-balanced combination of materials with different acoustic properties is ideal, as either extreme can negatively impact the accuracy and performance of the music reproduction.

Room contents also influence acoustic character. Hard surfaces such as glass, concrete, and wooden floors tend to reflect or diffuse a broad spectrum of acoustic energy. In contrast, soft materials like heavy natural fibre curtains, large rugs, or acoustic panels absorb a wide range of frequencies, helping to create a more balanced sound environment.

5.1 Standing Waves

When sound waves reflect between two parallel surfaces spaced at half the wavelength or less (depending on wave size), resonance modes known as standing waves are formed. In loudspeakers with parallel walls, these waves can introduce distortions.

In a listening room, standing waves can alter the frequency response of the system by either boosting or cancelling certain frequencies. If a particular standing wave frequency is acoustically isolated from surrounding modal frequencies, it is more likely to be noticeable and problematic. This can compromise the accuracy of any loudspeaker's sound reproduction.

5.2 Reflection, Absorption, and Diffusion

The upper range of frequencies is generally more affected by room contents than by room shape. The way surfaces reflect, absorb, or diffuse acoustic energy largely defines the 'sound' of a room. As with all forms of energy, acoustic energy cannot be destroyed—it can only be converted or redirected. The shape, thickness, and material of a surface determine how sound is reflected, how much is absorbed, and how much is converted into heat or kinetic energy.

Depending on frequency, surface material, and boundary density, some energy may pass through entirely. This effect is particularly noticeable in the lower frequency range, where longer wavelengths can travel through walls or ceilings into adjacent rooms. In contrast, higher frequencies are typically absorbed or reflected back into the listening space.

5.3 Diffusion

Diffusion occurs when sound energy is reflected and dispersed in a random or disordered manner, usually after encountering a non-uniform or uneven surface. A common example is a tightly packed bookshelf filled with books of varying sizes and depths, which can diffuse upper frequencies within a listening room.

Diffusing sound energy in key areas of the listening space is generally preferable to orderly reflection, as diffusion minimises interference with system accuracy. In contrast, reflection increases the amount of indirect sound reaching the listening position, which can introduce inaccuracies and unwanted artefacts in the audio presentation.

5.4 Identifying Reflection Points

Sound waves behave similarly to light waves or 'rays'. A useful analogy is to think of a loudspeaker driver as a floodlight illuminating the room. This concept helps in identifying the most critical areas that influence system performance.

To locate the first points of reflection, follow this simple method:

> Sit in the listening position and ask an assistant to hold a mirror against each side wall.

> When the loudspeaker drivers become visible in the mirror, those points represent the primary reflection areas and should be evaluated for their acoustic impact.

> The first reflection point on the ceiling can also be considered for its influence on sound accuracy.

5.5 Room Adjustments and Acoustic Balance

While many listening rooms serve dual purposes (e.g., as both living and listening spaces), professional acoustic treatments may not always be practical. However, small but meaningful improvements can still be made by rearranging furniture, adjusting system components, and optimising the listening position.

Rooms are inherently changeable—even adjusting heavy curtains can alter a system's balance. The goal is to fine-tune the room's acoustic response, and the listener plays a key role in achieving this balance.

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5.7 Loudspeaker and Listening Position

A high-end audio system is a sum of multiple variables—each component, the room's unique acoustic character, and the listener's personal taste all play a role. Achieving the best performance requires experimentation, fine-tuning the system to suit the individual listener's preferences. There is no universal rule for loudspeaker placement that applies to every installation of a Wilson Benesch loudspeaker. For this reason, no fixed minimum or maximum positioning parameters are provided. The listening position should also be assessed in the same manner.

5.8 Speaker Positioning and Soundstage

The distance between the speakers and their relative distance to the listening position directly affect the soundstage size and imaging. Additionally, moving the listening position closer to the speakers reduces the proportion of reflected sound to direct sound, affecting clarity and spatial accuracy.

A widely recommended setup follows the equilateral triangle principle, where the distance between the speakers is equal to the distance between each speaker and the listening chair. However, experimentation is key.

> Increasing the distance between speakers can widen the soundstage, leading to a more immersive presentation.

> The proximity of speakers to rear and side walls should also be carefully considered. Bass performance can suffer when a speaker is too close to these boundaries, causing boomy or bloated bass and/or frequency cancellations.

> This effect is amplified in corners, where two boundaries meet, making placement in such areas less ideal.

5.9 The Importance of Time and Gradual Adjustments

Time is the most valuable asset in this process. Small adjustments over an extended period will yield the best results. During the burn-in period, it is advisable to experiment with placement, gaining an initial understanding of how the loudspeakers integrate with the room. However, final adjustments should be made only after this period has fully elapsed.

5.10 Fine-Tuning and Evaluation

Once the burn-in period is complete, the final positioning and fine-tuning can begin. Toe-in and rake angles can produce significant changes in the overall presentation, and careful adjustments should be made to achieve the optimal listening experience.

To assist with speaker positioning and evaluation, we recommend selecting four musical passages that highlight different aspects of performance:

> A track with a distinctive and clearly articulated human voice—spoken voice is ideal.

> A full orchestral piece—such as The Pines of Rome.

> A track with strong emotional resonance—something that is personally moving.

> A rhythmically dynamic track with deep bass content—for example, a dance music track with pronounced low frequencies. By listening critically and adjusting positioning accordingly, you can achieve the best possible integration of the loudspeakers within your listening space.

5.11 Speaker Toe-In

The degree of speaker toe-in affects the balance between centre image sharpness and soundstage width. Increasing toe-in improves focus and precision at the centre, but at the expense of image width. Additionally, upper frequencies become more pronounced as the tweeters are aligned on-axis with the listener's ears.

While some toe-in is generally recommended, the optimal angle will vary depending on the room acoustics and listener preferences. Experimentation is encouraged—one effective method is to have an assistant adjust the speakers while the listener evaluates changes from the listening position.

5.12 Spikes & Speaker Rake Angle

Wilson Benesch tweeter positioning is optimised for listeners seated in relaxed, conventional seating positions. However, the rake angle of the speaker can be adjusted by modifying the speaker spikes.

> Tilting the speaker slightly backwards raises the perceived soundstage height.

> This adjustment can also affect the tonal balance, as upper frequencies become more prominent when the tweeter is aligned on-axis with the listener's ears.

5.13 Loudspeaker Clearance and the Bass Port

For loudspeakers with a downward-facing bass port, low-frequency performance can be influenced by adjusting the clearance between the speaker and the floor—similar to how bass is affected by placement near a wall.

Smaller clearance (closer to the floor) enhances low-frequency response, resulting in a more pronounced bass presentation. Larger clearance (greater distance from the floor) reduces bass reinforcement, leading to a more neutral low-frequency balance. This is a critical step in speaker setup, and system balance can change significantly depending on this parameter. Fine adjustments should be made carefully to achieve the desired low-frequency response.

5.14 Kinematic Location Cups or Spikes

For carpeted floors, Wilson Benesch recommends spiked terminations, ensuring the spikes penetrate through the carpet and reach the sub-floor for maximum stability. For hard floors or low-pile carpets, the use of Kinematic Location Cups is advised to ensure optimal speaker decoupling without damaging flooring.

5.15 Bi-Amping

Bi-amping can provide amplifiers with greater control over the drivers, potentially improving performance by reducing interference between frequency ranges. However, it is not always the best solution and requires careful experimentation. It is generally not recommended to bi-amp using different types or makes of amplifier for different driver sections, as this can lead to inconsistencies in performance but users can experiment.

5.16 Bi-Wiring

Improvements may be heard by separating the energy supplied to each filter in the crossover. While cable construction varies, a high-quality cable should have low impedance, inductance, and capacitance. Avoid using cables that introduce additional crossover effects. As with bi-amping, experimentation is crucial—a cable that performs well in one system may not deliver the same results if an amplifier or another component is changed.

6.0 Loudspeaker Terminal Wiring

Wilson Benesch recommends using 8mm ring or spade connectors for cable terminations. A spanner is provided for securing the rhodium-plated nuts—a gentle pinch at the end of the spanner is sufficient to tighten them. Do not overtighten the terminals, as this may damage the terminal plate or cause the terminal to snap. Alternatively, the terminals are also compatible with 4mm banana plugs.

Wilson Benesch Fibonacci Series loudspeakers have two pairs of terminal lozenges that are positioned at the rear of the product. With the Discovery 3zero and Horizon the terminal lozenges are located at the base of the spine. With the A.C.T. 3zero, Endeavour 3zero, Resolution 3zero, Omnium and Eminence, the terminal lozenges are fitted on a dedicated terminal box is fitted on the back of the product foot.

One terminal lozenge is marked with an 'L' which denotes the Low terminal, generally this includes only the bass drive units of the loudspeaker. Within the Low terminal there is a negative and a positive terminal.

A second terminal lozenge is marked with an 'H' which denotes the High terminal, generally this includes only the midrange drive unit and the tweeter of the loudspeaker. Within the High terminal there is a negative and a positive terminal.

All Fibonacci Series loudspeakers are supplied with two pairs of link wires for linking the terminals for single wired operation. The positive link wire is coloured red and should be used to join the positive speaker binding post of the Low to the positive binding post of the High. The negative link wire is coloured black and should be used to join the negative speaker binding post of the Low to the negative binding post of the High.

If you are bi-wiring the loudspeaker, the link wires are not required.

The terminal on the Fibonacci Series.



Bi-Wired / Bi-Amped Operation



7.0 A Stable Listening Room Environment & Surface Finishes

Wilson Benesch loudspeakers are crafted from high-quality materials and durable surface finishes. However, as precisionengineered electronic devices with specialist luxury finishes, they require proper care and protection.

To maintain their condition, avoid exposure to high humidity, air pollutants, and water. Loudspeakers should never be left in direct sunlight, as prolonged exposure can cause the surface finishes to heat up and deteriorate. During periods of non-use, covering the speakers is recommended to protect them from dust and environmental factors.

In regions with high humidity or significant air pollution, particularly in large cities, Wilson Benesch strongly recommends the use of air purifiers and air conditioning to maintain a stable environment for both loudspeakers and other electronic equipment.

Drive Unit Rubber Surrounds

Wilson Benesch drive units feature rubber surrounds that contain a protective agent designed to react with airborne pollutants. A characteristic grey discolouration may appear on the rubber over time, indicating this protective process is occurring.

To restore the original black appearance, gently wipe the surface with a slightly damp cloth using deionised purified water. Take care to:

- > Avoid spreading water onto other surface finishes.
- > Ensure the cloth is only slightly damp-no excess water should remain on the speaker.

Cleaning Guidelines

> No other cleaning products or chemicals should be used on surface finishes.

> Drive units must never be cleaned with any chemicals, as this can cause irreversible damage.

8.0 Partnering Products

There is an extensive range of audio products available worldwide that can be used in partnership with Wilson Benesch loudspeakers. However, it would not be helpful to make specific recommendations for cabling or electronics that are "guaranteed" to meet or exceed expectations for every user.

System matching and synergy are key considerations, as every listener's preferences and room acoustics are unique. A setup that works well in one environment may not necessarily be the best choice in another. Auditioning is essential to achieving the best possible performance from any investment, as specifications alone can only provide a general indication of how a system might perform.

While power specifications of a potential partnering amplifier should be taken into account, many other factors influence how well an amplifier can drive a loudspeaker.

All Fibonacci Series loudspeakers are designed to deliver highly detailed insight into the performance of upstream components, including both electronics and source material. The overall presentation of the system can vary significantly depending on the components used. Taking the time to evaluate and select components that complement each other will yield the best results and ensure your system meets your personal expectations.

9.0 Handwheel and Extension Plate Removal

The extension plates are secured in place using large M6 Allen head bolts. In most cases, there is no need to remove these components; however, an M6 Allen wrench is supplied should removal be necessary.

10.0 No User Servicable Parts

Under no circumstances should you attempt to make any adjustments to the system's components beyond those specified in the setup procedure. The serial plate clearly denotes that your Fibonacci Series product contains no user serviceable parts. This includes drive units, tweeters and all the wiring in the loudspeaker. Any modifications will void the warranty of the loudspeaker. Any drive unit and tweeter replacements must be installed by an authorised Wilson Benesch dealer. Drive units installed by the customer will not be covered under any manufacturers warranty.

If you have any concerns regarding the system's performance, contact your authorised dealer for advice or assistance. In the unlikely event that your dealer is unable to resolve the issue, do not return the product to Wilson Benesch without prior written authorisation from the company.

11.0 Product Specifications

11.1 Discovery 3zero Standmount Loudspeaker

DRIVE TECHNOLOGY	Midrange Tweeter Isobaric Drive System	170mm(7") Wilson Benesch Tactic 3.0 25mm (1") Wilson Benesch Fibonacci Hybrid Silk-Carbon Tweeter 2x 170mm (7") Wilson Benesch Tactic in Clamshell Formation
CROSSOVER TECHNOLOGY	Midrange Tweeter Isobaric Drive System	First-Order, 5kHz Low Pass Filter Second-Order, 5kHz High Pass Filter First-Order 500Hz Low Pass Filter
ENCLOSURE TECHNOLOGY	Materials Midrange Enclosure Tweeter Isobaric Enclosure	A.C.T. 3Zero - Advanced Biocomposite Monocoque Technology, Poly-Alloy, Hybridised Construction Ported Enclosure, shorter port on the loudspeaker exterior Labyrinth Sealed Tweeter Backplate Ported Enclosure, longer port on the loudspeaker exterior
MEASUREMENTS	Type Impedance Sensitivity Frequency Response	2.5-way 6 Ohms Nominal / 4 Ohms Minimal 89dB @ 1-Meter on axis, 2.83V Input 38Hz - 30kHz +/- 2dB
DIMENSIONS & TERMINATIONS	Height Width Depth Weight Termination Spike Thread	 1187 mm (46.7") 187 mm (7.4") Baffle // 394 mm (15.5") Widest Point of the Foot 408 mm (16.1") 35.5kg (79lbs) Stand is integrated with the loudspeaker enclosure Bi-wirable terminal located on the spine of the stand at ground level 3x M14 // 1.5 pitch (per channel)

11.2 Horizon Floorstanding Loudspeaker

DRIVE TECHNOLOGY	Midrange Tweeter Bass	170mm(7") Wilson Benesch Tactic 3.0 25mm (1") Wilson Benesch Fibonacci Hybrid Silk-Carbon Tweeter 170mm(7") Wilson Benesch Tactic 3.0
CROSSOVER TECHNOLOGY	Midrange Tweeter Bass	Directly Amplifier Coupled Second-Order, 5kHz High Pass Filter First-Order
ENCLOSURE TECHNOLOGY	Materials Midrange Tweeter Bass	A.C.T. 3Zero - Advanced Biocomposite Monocoque Technology Poly-Alloy, Hybridised Construction Reflex Port Tuned with Laminar Flow Guide Labyrinth Sealed Tweeter Backplate Bass Reflex Port Tuned Enclosure
MEASUREMENTS	Type Impedance Sensitivity Frequency Response	2.5-way 6 Ohms Nominal / 4 Ohms Minimal 89 dB @ 1-Meter on axis, 2.83V Input 35Hz - 30kHz
DIMENSIONS & TERMINATIONS	Height Width Depth Weight Termination Spike Threads	 1015mm (41.34") with spikes installed at maximum height 194mm (7.6") Baffle // 340mm (13.39") widest point with spikes installed 360mm (14.17") 38kg (84lbs) Bi-wirable terminal located on the loudspeaker spine at ground level 4x M14 // 1.5 pitch (per channel)

11.3 A.C.T. 3zero Floorstanding Loudspeaker

DRIVE TECHNOLOGY	Midrange Tweeter Low Bass Isobaric Drive System 1	170mm(7") Wilson Benesch Tactic 3.0 25mm (1") Wilson Benesch Fibonacci Hybrid Silk-Carbon Tweeter 170mm(7") Wilson Benesch Tactic 3.0 2x 170mm (7") Wilson Benesch Tactic in Clamshell Formation
CROSSOVER TECHNOLOGY	Midrange Tweeter Low Bass Isobaric Drive System 1	Directly Amplifier Coupled Second-Order, 5kHz High Pass Filter First-Order First-Order 500Hz Low Pass Filter
ENCLOSURE TECHNOLOGY	Materials Midrange Tweeter Low Bass Isobaric Enclosure	A.C.T. 3Zero - Advanced Biocomposite Monocoque Technology, Poly-Alloy, Hybridised Construction Reflex Port Tuned with Laminar Flow Guide Labyrinth Sealed Tweeter Backplate Infinite Baffle Sealed Enclosure Infinite Baffle Sealed Enclosure
MEASUREMENTS	Type Impedance Sensitivity Frequency Response	2.5-way 6 Ohms Nominal / 4 Ohms Minimal 89 dB @ 1-Meter on axis, 2.83V Input 34Hz - 30kHz
DIMENSIONS & TERMINATIONS	Height Width Depth Weight Termination Spike Threads	 1132mm (44.5") 194mm (7.6") Baffle // 276mm (10.8") Widest Point of Foot 376mm (14.8") 48kg (106lbs) Bi-wirable terminal located on the loudspeaker foot at ground level 4x M14 // 1.5 pitch (per channel)

11.4 Endeavour 3zero Standmount Loudspeaker

DRIVE TECHNOLOGY	Midrange Tweeter Isobaric Drive System	170mm(7") Wilson Benesch Tactic 3.0 25mm (1") Wilson Benesch Fibonacci Hybrid Silk-Carbon Tweeter 2x 170mm (7") Wilson Benesch Tactic in Clamshell Formation
CROSSOVER TECHNOLOGY	Midrange Tweeter Isobaric Drive System	First-Order, 5kHz Low Pass Filter Second-Order, 5kHz High Pass Filter First-Order 500Hz Low Pass Filter
ENCLOSURE TECHNOLOGY	Materials Midrange Enclosure Tweeter Isobaric Enclosure	A.C.T. 3Zero - Advanced Biocomposite Monocoque Technology, Poly-Alloy, Hybridised Construction Reflex Port Tuned with Laminar Flow Guide Labyrinth Sealed Tweeter Backplate Reflex Port Tuned Underside of Enclosure
MEASUREMENTS	Type Impedance Sensitivity Frequency Response	2.5-way 6 Ohms Nominal / 4 Ohms Minimal 89dB @ 1-Meter on axis, 2.83V Input 38Hz - 30kHz +/- 2dB
DIMENSIONS & TERMINATIONS	Height Width Depth Weight Termination Spike Thread	 1425mm (56.1") 191mm (7.5") Baffle // 526mm (20.7") Widest Point of the Foot 480 mm (18.9") 75kg (165lbs) Stand is integrated with the loudspeaker enclosure Bi-wirable terminal located on the loudspeaker foot at ground level 3x M28 // 1.5 pitch (per channel)

11.5 Resolution 3zero Floorstanding Loudspeaker

DRIVE TECHNOLOGY	Low Bass Tweeter Midrange Isobaric Drive System 1 Isobaric Drive System 2	 170mm(7") Wilson Benesch Tactic 3.0 25mm (1") Wilson Benesch Fibonacci Hybrid Silk-Carbon Tweeter 170mm(7") Wilson Benesch Tactic 3.0 2x 170mm (7") Wilson Benesch Tactic in Clamshell Formation 2x 170mm (7") Wilson Benesch Tactic in Clamshell Formation
CROSSOVER TECHNOLOGY	Low Bass Tweeter Midrange Isobaric Drive System 1 Isobaric Drive System 2	First-Order Second-Order, 5kHz High Pass Filter Directly Amplifier Coupled First-Order 500Hz Low Pass Filter First-Order 500Hz Low Pass Filter
ENCLOSURE TECHNOLOGY	Materials Low Bass Enclosure Tweeter Midrange Isobaric Enclosure	A.C.T. 3Zero - Advanced Biocomposite Monocoque Technology, Poly-Alloy, Hybridised Construction Infinite Baffle Sealed Enclosure Labyrinth Sealed Tweeter Infinite Baffle Sealed Enclosure Bass Reflex Port Tuned Underside of Enclosure
MEASUREMENTS	Type Impedance Sensitivity Frequency Response	2-way Electric, 4-Way Acoustic 6 Ohms Nominal / 3 Ohms Minimal 90dB @ 1-Meter on axis, 2.83V Input 30Hz - 30kHz +/- 2dB
DIMENSIONS & TERMINATIONS	Height Width Depth Weight Termination Spike Thread	 1558mm (61.3") 191mm (7.5") Baffle // 519mm (20.4") Widest Point of the Foot 505mm (19.8") 98kg (216lbs) Bi-wirable terminal located on the loudspeaker foot at ground level 4x M28 // 1.5 pitch (per channel)

11.6 Omnium Floorstanding Loudspeaker

DRIVE TECHNOLOGY	Upper Bass 1 Upper Bass 2 Tweeter Midrange Low Bass 1 Isobaric Drive System 1 Isobaric Drive System 2	 170mm(7") Wilson Benesch Tactic 3.0 170mm(7") Wilson Benesch Tactic 3.0 25mm (1") Wilson Benesch Fibonacci Hybrid Silk-Carbon Tweeter 170mm(7") Wilson Benesch Tactic 3.0 170mm(7") Wilson Benesch Tactic 3.0 2x 170mm (7") Wilson Benesch Tactic in Clamshell Formation 2x 170mm (7") Wilson Benesch Tactic in Clamshell Formation
CROSSOVER TECHNOLOGY	Upper Bass 1 Upper Bass 2 Tweeter Midrange Low Bass 1 Isobaric Drive System 1 Isobaric Drive System 2	First-Order First-Order Second-Order, 5kHz High Pass Filter Directly Amplifier Coupled First-Order First-Order 500Hz Low Pass Filter First-Order 500Hz Low Pass Filter
ENCLOSURE TECHNOLOGY	Materials Upper Bass Enclosure Tweeter Midrange Low Bass 1 Isobaric Enclosure	A.C.T. 3Zero - Advanced Biocomposite Monocoque Technology, Poly-Alloy, Hybridised Construction Infinite Baffle Sealed Enclosure Labyrinth Sealed Tweeter Backplate Infinite Baffle Sealed Enclosure Infinite Baffle Sealed Enclosure Infinite Baffle Sealed Enclosure
MEASUREMENTS	Type Impedance Sensitivity Frequency Response	2.5-way 4.5 Ohms 89dB @ 1-Meter on axis, 2.83V Input 27Hz - 30kHz +/- 2dB
DIMENSIONS & TERMINATIONS	Height Width Depth Weight Termination Spike Thread	 1740mm (68.5") 205mm (8.1") Baffle // 594mm (23.39") Widest Point of the Foot 624mm (24.6") 140 kg (308.65 lbs) Ships as two Enclosures. 110kg (242lbs) Lower // 30kg (66lbs) Upper Bi-wirable terminal located on the loudspeaker foot at ground level 4x M28 // 1.5 pitch (per channel)

11.7 Eminence Floorstanding Loudspeaker

DRIVE TECHNOLOGY	Upper Bass 1 Upper Bass 2 Tweeter Midrange Low Bass 1 Low Bass 2 Isobaric Drive System 1 Isobaric Drive System 2	 170mm(7") Wilson Benesch Tactic 3.0 170mm(7") Wilson Benesch Tactic 3.0 25mm (1") Wilson Benesch Fibonacci Hybrid Silk-Carbon Tweeter 170mm(7") Wilson Benesch Tactic 3.0 170mm(7") Wilson Benesch Tactic 3.0 170mm(7") Wilson Benesch Tactic 3.0 2x 170mm (7") Wilson Benesch Tactic in Clamshell Formation 2x 170mm (7") Wilson Benesch Tactic in Clamshell Formation
CROSSOVER TECHNOLOGY	Upper Bass 1 Upper Bass 2 Tweeter Midrange Low Bass 1 Low Bass 2 Isobaric Drive System 1 Isobaric Drive System 2	First-Order First-Order Second-Order, 5kHz High Pass Filter Directly Amplifier Coupled First-Order First-Order First-Order 500Hz Low Pass Filter First-Order 500Hz Low Pass Filter
ENCLOSURE TECHNOLOGY	Materials Upper Bass Enclosure Tweeter Midrange Lower Bass Enclosure Isobaric Enclosure	A.C.T. 3Zero - Advanced Biocomposite Monocoque Technology, Poly-Alloy, Hybridised Construction Infinite Baffle Sealed Enclosure Labyrinth Sealed Tweeter Backplate Infinite Baffle Sealed Enclosure Infinite Baffle Sealed Enclosure Infinite Baffle Sealed Enclosure
MEASUREMENTS	Type Impedance Sensitivity Frequency Response	2.5-way 4.5 Ohms 89dB @ 1-Meter on axis, 2.83V Input 24Hz - 30kHz +/- 2dB
DIMENSIONS & TERMINATIONS	Height Width Depth Weight Termination Spike Thread	1905mm (75") 205mm (8.1") Baffle // 613mm (24.1") Widest Point of the Foot 624mm (24.6") 145kg (320 lbs) Ships as one complete channel Bi-wirable terminal located on the loudspeaker foot at ground level 4x M28 // 1.5 pitch (per channel)

12.0 Limited Warranty

Subject to the provisions set out below, Wilson Benesch warrants its loudspeakers to be free of manufacturing defects in material and workmanship for the Warranty Period (the "Limited Warranty").

The Warranty Period is a period of one (1) year starting from the shipment date recorded when the product leaves the Wilson Benesch factory in England. The Warranty Period is provided to the original purchaser only. The Warranty Period can be extended to a period of five (5) years from the date of shipment, for the original purchaser only, if:

1. **Product Registration;** no later than one (1) year after the product has shipped from the factory, the original owner registers the product directly with Wilson Benesch. This can be completed using the QR code at the start of this manual, by completing the warranty registration online at www.wilson-benesch.com; or by emailing Wilson Benesch directly on info@wilson-benesch.com. In each instance Wilson Benesch will reply and acknowledge receipt of the warranty registration and confirm registration. If you do not receive a reply, please contact us directly using our phone line, +44 (0)114 2852656.

2. **Professional Installation by the Dealer;** the loudspeaker has been professionally installed on site by the Wilson Benesch dealer that sold the loudspeaker to the purchaser,

the above conditions being the "Warranty Conditions".

FAILURE TO COMPLY WITH EITHER OF THE WARRANTY CONDITIONS WILL RESULT IN THE WARRANTY PERIOD BEING LIMITED TO A PERIOD OF ONE (1) YEAR ONLY.

11.1 Limitations of Warranty

Wilson Benesch will have no obligations in relation to the Limited Warranty if the loudspeaker has been:

1. used or handled other than in accordance with the instructions in the loudspeaker's owner's manual; or

2. abused or misused, damaged by accident, neglect or in transit, or if the loudspeaker has been tampered with or service or repair of the loudspeaker has been attempted or performed by anyone other than Wilson Benesch, an authorised Wilson Benesch dealer or technician or a technician of an authorised importer of Wilson Benesch loudspeakers.

In the event that a loudspeaker defect is deemed (by Wilson Benesch) to be due to a manufacturing defect or failure of the components, Wilson Benesch will affect the repair of the loudspeaker without charge for parts or labour and will pay standard shipping costs to return the loudspeaker to the purchaser. In all other circumstances, Wilson Benesch will provide the purchaser with a quote for the repair and the purchaser shall be solely responsible for any service or handling charge levied before receipt of the loudspeaker by Wilson Benesch, together with the cost of the return of the loudspeaker to the purchaser and the cost of any repair.

Wilson Benesch reserves the right to modify the design of any loudspeaker without obligation to purchasers of previously manufactured products and to change the prices or specifications of any loudspeaker without notice or obligation to any person.

11.2 Repairs

In the event that a loudspeaker is defective, and the purchaser considers that the Limited Warranty applies, the purchaser should contact an authorised Wilson Benesch Dealer or authorised service and repair centre (together a "Dealer") (details of which can be obtained by contacting Wilson Benesch on (+44 (0) 114 285 2656) within the Warranty Period for service or repair of the loudspeaker. The Dealer will confirm whether it considers the Limited Warranty to be applicable (subject always to receipt of the loudspeaker to determine the reason for the defect). If the Limited Warranty is applicable, the service or repair shall, at the Dealer's option, take place either on site or at the Dealer's place of business. If the service or repair is at the Dealer's place of business, the purchaser shall be responsible for the cost of return to the Dealer and the dealer is responsible for the cost of return to the purchaser.

If the Limited Warranty is applicable but the loudspeaker cannot be repaired by the Dealer, then the purchaser must first obtain a return authorisation from Wilson Benesch and at the purchaser's cost return the loudspeaker to Wilson Benesch authorisation with a written description of the defect. The defect will be rectified by Wilson Benesch without charge for parts or labour and Wilson Benesch will return the repaired loudspeaker to the purchaser at Wilson Benesch's cost.

11.3 Warranty Limited to Original Purchaser

Subject as otherwise provided below in relation to demonstration equipment, the Limited Warranty is for the sole benefit of the original purchaser of the loudspeaker and shall not be transferable to any subsequent purchaser of the loudspeaker.

11.4 Demonstration Equipment

Any Loudspeaker purchased by a Wilson Benesch authorised dealer, while used by such authorised dealer for demonstration purposes, is warranted to be free of manufacturing defects in materials and workmanship for a period of five (5) years from the date recorded on the shipping confirmation form retained by Wilson Benesch when the loudspeaker leaves the factory in England.

Any such loudspeaker which is covered by the Limited Warranty and requires repair may be repaired on-site or, if necessary (at Wilson Benesch's option), correctly packed and returned to Wilson Benesch by, and at the sole cost of, the dealer accompanied by a written description of the defect.

In the event that the loudspeaker defect is deemed to be due to a manufacturing defect or failure of components, Wilson Benesch will affect the repair the loudspeaker without charge for parts or labour and will pay standard shipping costs to return the loudspeaker to the dealer. In all other circumstances, Wilson Benesch may provide the dealer with a quote for the repair and the dealer shall be solely responsible for the cost of the repair and the return of the loudspeaker to the dealer.

11.5 On-Sale of Demonstration Equipment

The Limited Warranty shall apply in relation to a dealer-owned demonstration loudspeaker sold to a retail customer on the same terms as set out above, except that the original purchaser shall be deemed to be the retail customer to whom the dealer sold the loudspeaker and the Warranty Period shall be the remaining period left on the original 5-year Warranty granted to the dealer calculated from the date of the sale to such retail customer.

The dealer shall notify Wilson Benesch by sending an email to info@wilson-benesch.com within 7 days from the date of sale of a dealer-owned demonstration loudspeaker to a retail customer detailing the date of the sale, the model, model number and serial number of the dealer-owned demonstration loudspeaker sold. In the absence of any such notification by the dealer, the remaining term of the Warranty Period shall lapse.



Manufacturer: Wilson Benesch Ltd. Falcon House, Limestone Cottage Lane, Sheffield, S6 1NJ, United Kingdom. Email: info@wilson-benesch.com

EU Authorised Representative: Global Trade Department (NI) Ltd, Office 834, Unit 6, 100 Lisburn Road, Belfast, BT9 6AG, Northern Ireland. Email: <u>contact@globaltradedept.com</u>







