

## Diamond Audio HEX Diamante Italia Instruction Manual

### **Warning**

Enjoy your Diamond Audio HEX Diamante Italia Edition speakers responsibly. Listening for a prolonged period at a high volume level, over 110 dB, may result in hearing loss, while exposure over 130 dB may result in irreparable hearing damages or loss.

### **Recommendations**

Always check to ensure that there is enough space available for the loudspeakers before installation. If the loudspeakers are to be mounted as replacements for the original speakers, please check whether there is enough space between the loudspeaker and the protective grill.

Always keep the loudspeakers away from dust and always keep the loudspeakers clean during the installation process.

### **Warranty**

Should you encounter problems, contact your authorized Diamond Audio dealer immediately. In the event of possible equipment failure, please return it in its original packaging to your local authorized Diamond Audio dealer who can evaluate the speakers and determine the nature of the problem. The warranty does not cover damage arising from improper use or incorrect connection (e.g. burned voice coils...)

The HEX Diamante Italia Edition (HX653DI) 3-way component speaker system provides superior value for the acoustical high-end performance that it delivers. With similar technologies trickling down from the HEX PRO Diamante Italia model, the HX653DI carves its own niche with a proprietary composite fiberglass cone that is thermally bonded with special bronze fibers creating a rigid yet lightweight speaker cone that delivers broad and smooth frequency response.

The HEX 6.5" mid/bass speaker utilizes a 1.25" voice coil while the accompanying 2.5" midrange speaker utilizes a .75" voice coil for substantial power handling. A natural 1" silk dome tweeter delivers innate highs and a special composite fiber basket completely dulls out any unwanted noise by completely reducing any vibration and resonance in order for the HX653DI to reproduce tonal harmonic accuracy and pinpoint imaging.

## **HEX – High Power Handling**

**6.5" Mid/bass** - Composite Fiber Basket - HBNR Rubber Surround – 1.25" voice coil – Proprietary Bronze Fiberglass Cone. Gold Plated Terminals - Cotton Spider – CCAW Voice Coil

**2.5" Midrange Composite Fiber Basket** - Foam Surround – 0.75" Voice Coil – Fiberglass Cone – Fiberglass Phase Cone – Gold Plated Terminals – Cotton Spider – CCAW Voice Coil

**Tweeter:** 1" Silk Dome – Kapton Former - Composite Fiber Case

## **Tech Specs**

Power handling:	150 watts RMS
Sensitivity:	90 db 1W/1m
Frequency response:	45HZ- 20 Khz
Nominal Impedance:	3.3 Ohm
Crossover Frequencies:	500-5000HZ 12 db/oct

**Cotton Spider:** For long lasting performances.

**Kapton Former:** Very light for optimal response and clear highs.

**3.3 Ohms Voice Coil:** For easier handling of the electrical impulse and for higher level of sound output without dropping below dangerous impedance levels.

**Fiberglass Phase Cone:** For maximum off-axis dispersion

**HBNR Rubber Surround:** For longer duration in extreme weather and years of long lasting performance.

**Composite Fiber Basket:** To cancel resonances. Aerodynamically shaped to have a constant 360° natural flow of the air.

**Bronze Fiberglass Cone:** Double layer cone made with bronze and fiberglass fibers. Rigid yet light.

**Copper-Clad Aluminum Wire:** commonly abbreviated as **CCAW** or **CCA**, is an electrical conductor composed of an inner aluminum core and outer copper cladding. The primary application of this conductor revolves around weight reduction requirements. These applications consists of high-quality coils.

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The HEX PRO Diamante Italia Edition (HXPRO653DI) 3-way component speaker system was designed and engineered to mimic the sonic and tonal qualities of musical instruments with vocals being reproduced as naturally as possible. The speakers deliver the widest band of midrange frequency, superior mid-bass response, and vocals that exudes the fidelity of a live performance.

Cost was never an option with the HXPRO653DI as the basket foundation was constructed from a solid block of precision CNC machined aluminum not only for the mid/bass and midrange speakers, but the tweeter casing as well. The soul of the speaker comes from a proprietary formulated double layer cone consisting of treated "Alumiglass" and the best quality of cotton fiber fineness and length handcrafted in Italy for superior stiffness while being ultra-lightweight for tremendous response.

The HEX PRO 6.5" midbass speaker utilizes a 1.25" voice coil while the accompanying 3" midrange speaker utilizes a 1" voice coil for superior power handling capabilities. The HEX PRO Diamante Italia tweeters combine a natural 1" silk dome encompassed with a Kapton former and a neo-magnet motor structure for the perfect sonic reproduction making music sound as much like the real thing as possible!

## **HEX PRO – Very High Power Handling**

**6.5” Mid/bass** - Anodized Aluminum Basket - HBNR Rubber Surround – 32 mm voice coil – Proprietary Double Layer Aluminum-Fiberglass and Cotton Fiber Cone. Gold Plated Terminals - Cotton Spider – CCAW Voice Coil

**3” Midrange** - CNC Anodized Aluminum Basket - HBNR Rubber Surround – 25 mm Voice Coil - Proprietary Double Layer Aluminum-Fiberglass and Cotton Fiber Cone - Gold Plated Terminals - Cotton Spider – CCAW Voice Coil

**Tweeter** -1” Silk Dome – Kapton Former – CNC Anodized Aluminum case

### **Tech Specs**

Power handling:	180 watts RMS
Sensitivity:	89 db 1W/1m
Frequency response:	40HZ- 20 Khz
Nominal Impedance:	3.3 Ohm
Crossover Frequencies:	500-5000HZ 12 db/oct

**Cotton Spider:** For long lasting performances.

**Kapton Former:** Very light for optimal response and clear highs.

**3.3 Ohms Voice Coil:** For easier handling of the electrical impulse and for higher level of sound output without dropping below dangerous impedance levels.

**HBNR Rubber Surround:** For longer duration in extreme weather and years of long lasting performance.

**CNC Basket (From Single Solid Piece of Aluminum):** For maximum rigidity and bass performance. Aerodynamically shaped to have a constant 360° natural flow of the air.

**CNC Tweeter Housing (From Single Piece of Aluminum):** To cancel resonances, dissipate heat, and stabilize the emission of the sound.

**Alumiglass Cone:** Aluminum-fiberglass and cotton fiber composite cone for powerful bass and very delicate midrange output.

**Copper-Clad Aluminum Wire:** commonly abbreviated as **CCAW** or **CCA**, is an electrical conductor composed of an inner aluminum core and outer copper cladding. The primary application of this conductor revolves around weight reduction requirements. These applications consists of high-quality coils.

**High grade crossover components:** For natural and clean response of each speaker.

