

USHER
www.usheraudio.com



USHER Diamond DMD Technology: Uncovering Key To Superlative Diamond Sound

Because of its extreme hardness and excellent thermal conductivity, diamond has always been considered a potentially great material for loudspeaker diaphragm. Tweeter units with a diaphragm made of synthetic diamond, from the traditional CVD (Chemical Vapor Deposition) method, have been around for quite some time, but many find their sonic performance compromised, due mainly to the relatively high mass of the diamond dome and also to the unfavorable resonance signature of the material itself.

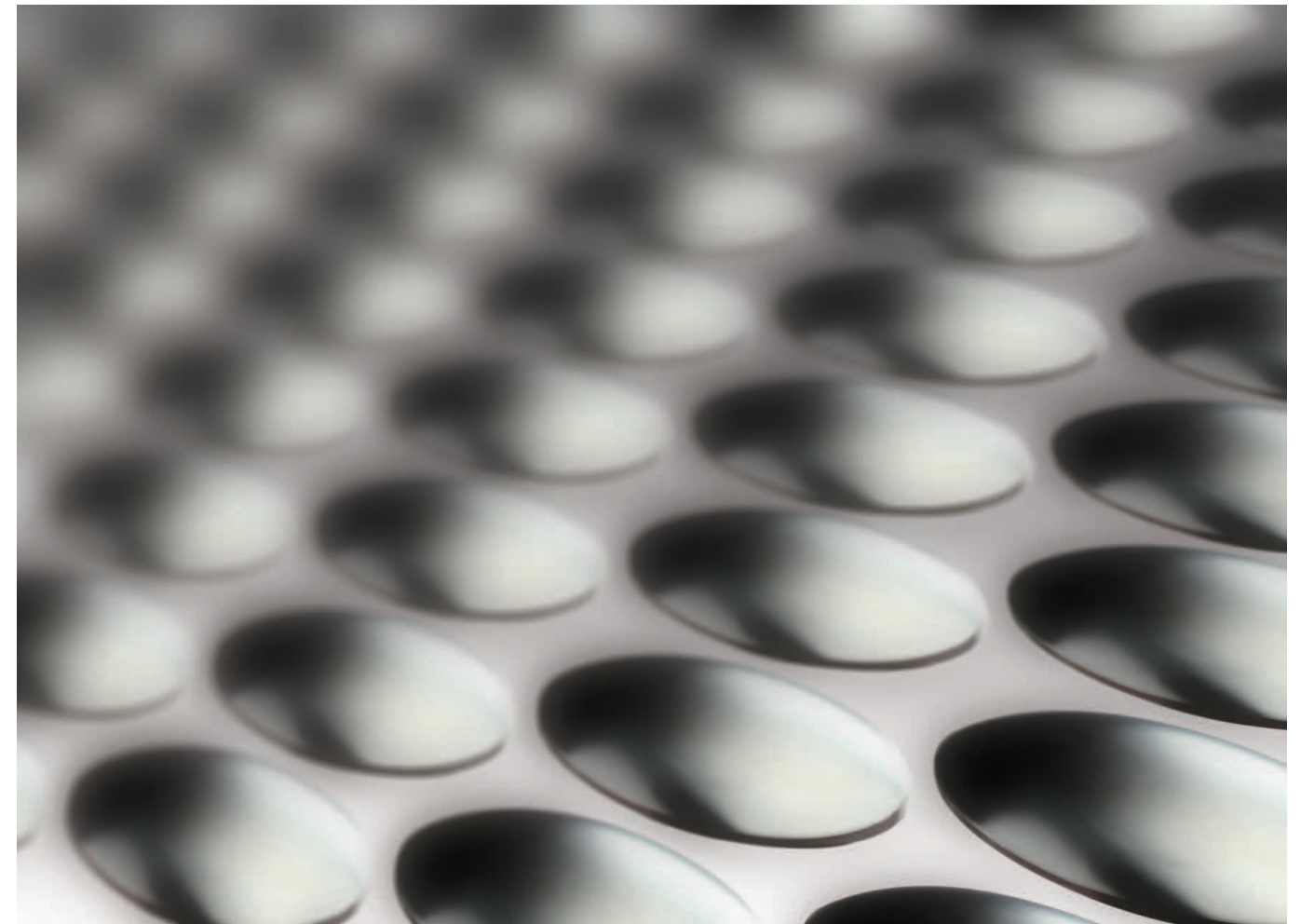
At Usher, we saw the promise of diamond as an ideal diaphragm material, but we also reckoned that it would take some original thinking and an innovative approach to the engineering, in order to bring out the best of this unusual material for application in audio. In typical Usher fashion, we took our time to carefully research and develop our own original solutions for both pure diamond and laminate diamond diaphragms, tackling the issues with both imagination and extensive measuring/listening tests.

Today, years after we began our quest for the ultimate diamond sound, we're pleased to present to the music-loving public and audiophiles the exciting result of our first diamond technology research project, and we believe the key to superlative diamond sound: The new Usher Diamond DMD series speakers.

Employing the Usher Diamond DMD Technology, our Diamond DMD speakers have a new tweeter unit with an USHER Diamond DMD dome. The DMD dome is effectively a diamond dome with a reduced mass and a well-controlled, appealing sound signature, resembling very closely a perfect piston in its behavior. This is made possible by its laminated diamond-metal-diamond structure, which consists of a proprietary metal alloy base layer coated with an amorphous diamond-like carbon layer (pure diamond is carbon atoms arranged solely in sp^3 bonds; amorphous diamond-like carbon has mixed sp^3 and sp^2 bonds to achieve its desirable properties) on both sides. The base metal layer of the Diamond DMD dome tames all the diamond layers' unfavorable sonic traits and brings out the best of both materials.

The true revolution, however, is in the Diamond DMD tweeter's unprecedented micro-dynamics resolving power. The DMD dome's structural integrity makes possible a surprisingly intact and undistorted reproduction of the input signal, which clearly shows in the reproduced sound as a sense of purity and completeness that is at the same time new and familiar: New in reproduced music but familiar in live performances.

Last but not the least, owners of Usher's BE series will have the option to upgrade to the Diamond DMD tweeters at their cost. For details please contact your Usher official dealer.



USHER Diamond DMD dome is effectively a diamond dome with a reduced mass and a well-controlled, appealing sound signature, resembling very closely a perfect piston in its behavior



A Perfect Mix: An USHER Diamond DMD dome has a proprietary metal alloy base layer coated with an amorphous diamond-like carbon layer on both sides. Pure diamond is carbon atoms arranged solely in sp^3 bonds; amorphous diamond-like carbon has mixed sp^3 and sp^2 bonds to achieve its desirable properties

Dancer Diamond Series Loudspeaker



CP-8571 Diamond

2007 "Taiwan Excellence" Award --- Ministry of Economic Affairs
2007 "Editor's Choice" Award --- Fidelity
2005 "Golden Ear" Award --- The Absolute Sound
2005 "Editor's Choice" Award --- The Absolute Sound



CP-8871 Diamond

2007 "Editor's Choice" Award --- Hi Fi & Hi Vi Monthly
2005 "Best Show at CES" Jimmy Award --- SoundStageAV.com



BE-10 Diamond

2009 "Editor's Choice" Award --- Hi Fi World
2007 "Editor's Choice" Award --- Home Entertainment
2007 "Best Value Of The Year" --- Audio Art



BE-20 Diamond

2008 "Editor's Choice" Award --- The Absolute Sound
2006 "Editor's Choice" Award --- Hi Fi & Hi Vi Monthly
2006 "Best Sound at CES" --- The Absolute Sound



CP-777 Diamond

2-way system
1.25" Diamond DMD dome tweeter
Two 7" woofers
Sensitivity: 90 dB @ 1 watt / 1m
Nominal impedance: 4 ohms
Frequency response (-3 dB): 32 Hz ~ 40 kHz
Power handling: 100 watts
Crossover frequency: 2.74 kHz
Weight: 36.9 kgs/81.3 lbs. per piece
Dimensions (w x d x h): 31.6 cm x 59 cm x 64.7 cm
; 12.4" x 23.2" x 25.2"



CP-8571 Diamond

3-way system
1.25" Diamond DMD dome tweeter
7" midrange
8" carbon-impregnated woofer
Sensitivity: 87 dB @ 1 watt / 1m
Nominal impedance: 8 ohms
Frequency response (-3 dB): 26 Hz ~ 40 kHz
Power handling: 150 watts
Crossover frequencies: 282 Hz, 2.52 kHz
Weight: 80.5 kgs/177.5 lbs. (including base) per piece
Dimensions (w x d x h): 31.5 cm x 76 cm x 124 cm
; 12.4" x 29.9" x 48.8"



CP-8871 Diamond

3-way system
1.25" Diamond DMD dome tweeter
7" midrange
Two 8" carbon-impregnated woofers
Sensitivity: 90 dB @ 1 watt / 1m
Nominal impedance: 4 ohms
Frequency response (-3 dB): 24 Hz ~ 40 kHz
Power handling: 150 watts
Crossover frequencies: 276 Hz, 2.52 kHz
Weight: 105 kgs/231 lbs. (including base) per piece
Dimensions (w x d x h): 31.5 cm x 85 cm x 137 cm
; 12.4" x 33.5" x 53.9"



BE-10 Diamond

3-way system
1.25" Diamond DMD dome tweeter
5" BE dome midrange
11" woofer
Sensitivity: 89 dB @ 1 watt / 1m
Nominal impedance: 8 ohms
Frequency response (-3 dB): 24 Hz ~ 40 kHz
Power handling: 180 watts
Crossover frequencies: 385 Hz, 3.5 kHz
Weight: 92 kgs/203 lbs. (including base) per piece
Dimensions (w x d x h): 36.5 cm x 71.5 cm x 121.5 cm
; 14.4" x 28.2" x 47.8"



BE-20 Diamond

3-way system
1.25" Diamond DMD dome tweeter
5" BE dome midrange
Two 11" woofers
Sensitivity: 90 dB @ 1 watt / 1m
Nominal impedance: 4 ohms
Frequency response (-3 dB): 23 Hz ~ 40 kHz
Power handling: 200 watts
Crossover frequencies: 385 Hz, 3.5 kHz
Weight: 123 kgs/271 lbs. (including base) per piece
Dimensions (w x d x h): 36.5 cm x 89.5 cm x 140 cm
; 14.4" x 35.2" x 55.1"

Dancer Diamond Series Loudspeaker



BE-718 Diamond

- 2009 Taiwan Excellence Awards
- 2009 Stereophile Class A Recommended Component
- 2008 Best Innovation Award CES
- 2008 Editor's Choice Awards — Stereophile
- 2007 Reviewer's Choice Award — SoundStage
- 2007 Best Sound at RMAF --- The Absolute Sound
- 2007 Reviewer's Choice — Audio Art
- 2007 Editor's Choice Awards — Hi Fi & Hi Vi Monthly
- 2007 Blue moon Awards — 6moons.com
- 2007 Editor's Choice Awards — Hi Fi World
- 2007 Editor's Choice Awards — The Absolute Sound
- 2007 Product of the Year Awards — The Absolute Sound



BE-616 Diamond

- 2-way system
- 1.25" Diamond DMD dome tweeter
- Two 7" woofers
- Sensitivity: 90 dB @ 1 watt / 1m
- Nominal impedance: 4 ohms
- Frequency response (-3 dB): 44 Hz ~ 40 kHz
- Power handling: 100 watts
- Crossover frequency: 2.8 kHz
- Weight: 23 kgs/50.7 lbs. per piece
- Dimensions (w x d x h): 64 cm x 39.5 cm x 25.4 cm ; 25.2" x 15.6" x 10"



BE-718 Diamond

- 2-way system
- 1.25" Diamond DMD dome tweeter
- 7" woofer
- Sensitivity: 87 dB @ 1 watt / 1m
- Nominal impedance: 8 ohms
- Frequency response (-3 dB): 42 Hz ~ 40 kHz
- Power handling: 80 watts
- Crossover frequency: 2.06 kHz
- Weight: 17.2 kgs/38 lbs. per piece
- Dimensions (w x d x h): 25.8 cm x 42.8 cm x 38.7 cm ; 10.2" x 16.9" x 15.2"



Dancer Mini-One Diamond

- 2009 Taiwan Excellence Awards
- "2009 Editor's Choice" Award --- Playback



Dancer Mini-Two Diamond

- 2009 Editor's Choice Awards — Hi Fi & Hi Vi Monthly



Dancer Mini-One Diamond

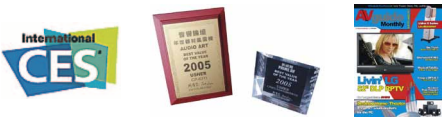
- 2-way system
- 1.25" Diamond DMD dome tweeter
- 7" woofer
- Sensitivity: 87 dB @ 1 watt / 1m
- Nominal impedance: 8 ohms
- Frequency response (-3 dB): 38 Hz ~ 40 kHz
- Power handling: 90 watts
- Crossover frequency: 2.3 kHz
- Weight: 37.3 kgs/82.2 lbs. (including base) per piece
- Dimensions (w x d x h): 31 cm x 36.5 cm x 105 cm ; 12.2" x 14.4" x 41.3"



Dancer Mini-Two Diamond

- 2-way system
- 1.25" Diamond DMD dome tweeter
- Two 7" woofers
- Sensitivity: 90 dB @ 1 watt / 1m
- Nominal impedance: 4 ohms
- Frequency response (-3 dB): 28 Hz ~ 40 kHz
- Power handling: 100 watts
- Crossover frequency: 2.7 kHz
- Weight: 52.3 kgs/115.3 lbs. (including base) per piece
- Dimensions (w x d x h): 34 cm x 48 cm x 123 cm ; 13.4" x 18.9" x 48.4"

X Series & CP Series Loudspeaker



CP-6311

2005 Editor's Choice Awards — The Absolute Sound

2005 Best value Award — AUDIO ART

2005 Best value Award — PRIME AV

2005 Editor's Choice Awards — Audio Video

2004 Editor's Choice Awards — The AV Guide

2004 Best Show for CES — The Stereo Times



X-616	X-718	CP-6311
2-way system	2-way system	2-way system
1.25" tweeter	1.25" tweeter	1.25" tweeter
7"x2" woofer	7" woofer	7" woofer
Sensitivity: 90 dB @ 1 watt / 1m	Sensitivity: 86 dB @ 1 watt / 1m	Sensitivity: 87 dB @ 1 watt / 1m
Nominal impedance: 4 ohms	Nominal impedance: 8 ohms	Nominal impedance: 8 ohms
Frequency response (-3 dB): 38 Hz ~ 28 kHz	Frequency response (-3 dB): 42 Hz ~ 28 kHz	Frequency response (-3 dB): 34 Hz ~ 28 kHz
Power handling: 100 watts	Power handling: 80 watts	Power handling: 80 watts
Crossover frequency: 2.95 kHz	Crossover frequency: 2.06 kHz	Crossover frequencies: 2.27 kHz
Weight: 21 kgs/46.3 lbs. per piece	Weight: 13.6 kgs/28.9 lbs. per piece	Weight: 40 kgs/88.2 lbs. per piece
Dimensions (w x d x h): 31.6 cm x 59 cm x 64.7 cm ; 12.4" x 23.2" x 25.5"	Dimensions (w x d x h): 25.5 cm x 40.7 cm x 39 cm ; 10" x 16" x 15.4"	Dimensions (w x d x h): 35.5 cm x 40 cm x 115 cm ; 14" x 15.7" x 45.3"

USHER Series Loudspeaker



S-520

2009 Group Test Awards — Hi Fi World

2008 Best value Award — Playback

2008 Best value Award — Audioholics

2008 Group Test Awards — Hi Fi World

2007 Group Test Awards — Hi Fi World

2007 Group Test Awards — Hifimaailma

2006 Editor's Choice Awards — Hi Fi World

2005 CES Jimmy Award — SoundStage AV



S-520	SW-520
2-way system	Subwoofer
1.25" tweeter	7" woofer
5" mid-bass	Sensitivity: 85 dB @ 1 watt / 1m
Sensitivity: 86 dB @ 1 watt / 1m	Nominal impedance: 8 ohms
Nominal impedance: 8 ohms	Frequency response (-3 dB): 38 Hz ~ 200 kHz
Frequency response (-3 dB): 52 Hz ~ 20 kHz	Power handling: 200 watts
Power handling: 50 watts	Crossover frequencies: 200 Hz
Crossover frequencies: 2 kHz	Weight: 32 kgs/70.5 lbs. per piece
Weight: 7 kgs/15.4 lbs. per piece	Dimensions (w x d x h): 18 cm x 38 cm x 78 cm ; 7" x 15" x 30.7"
Dimensions (w x d x h): 18 cm x 26.5 cm x 30 cm ; 7" x 10.4" x 11.8"	

USHER Series Loudspeaker



SW-210

Subwoofer
10" woofer
Sensitivity: 54 dB @ 1 watt / 1m
Nominal impedance: 4 ohms
Frequency response (-3 dB): 20 Hz ~ 150 kHz
Power handling: 350 watts
Crossover frequencies: 40 Hz~160 Hz
Weight: 23.3 kgs/51.4 lbs. per piece
Dimensions (w x d x h): 33 cm x 34.2 cm x 38.2 cm
; 13" x 13.5" x 15"



SW-212

Subwoofer
12" woofer
Sensitivity: 69 dB @ 1 watt / 1m
Nominal impedance: 8 ohms
Frequency response (-3 dB): 20 Hz ~ 150 kHz
Power handling: 350 watts
Crossover frequencies: 40 Hz~160 Hz
Weight: 34.7 kgs/271 lbs. per piece
Dimensions (w x d x h): 36.5 cm x 89.5 cm x 140 cm
; 14.4" x 35.2" x 55.1"



V-603

2-way system
1.25" tweeter
7"x2 woofer
Sensitivity: 89 dB @ 1 watt / 1m
Nominal impedance: 4 ohms
Frequency response (-3 dB): 43 Hz ~ 20 kHz
Power handling: 100 watts
Crossover frequencies: 2.32 kHz
Weight: 19.3 kgs/42.5 lbs. (including base) per piece
Dimensions (w x d x h): 53.5 cm x 41 cm x 24 cm
; 21.1" x 16.1" x 9.5"

V Series Loudspeaker

V-601

Editor's Choice Awards --- Audio Art



V-601

2-way system
1.25" tweeter
7" woofer
Sensitivity: 86.5 dB @ 1 watt / 1m
Nominal impedance: 8 ohms
Frequency response (-3 dB): 44 Hz ~ 20 kHz
Power handling: 70 watts
Crossover frequencies: 2.22 kHz
Weight: 12.6 kgs/27.8 lbs. (including base) per piece
Dimensions (w x d x h): 23.8 cm x 29.2 cm x 44.5 cm
; 9.4" x 11.5" x 17.5"



V-602

2-way system
1.25" tweeter
7" woofer
Sensitivity: 87 dB @ 1 watt / 1m
Nominal impedance: 8 ohms
Frequency response (-3 dB): 42 Hz ~ 20 kHz
Power handling: 70 watts
Crossover frequencies: 2.2 kHz
Weight: 24.2 kgs/53.4 lbs. (including base) per piece
Dimensions (w x d x h): 23.8 cm x 29.2 cm x 103.6 cm
; 9.4" x 11.5" x 40.8"



V-604

2-way system
1.25" tweeter
7"x2 woofer
Sensitivity: 90 dB @ 1 watt / 1m
Nominal impedance: 4 ohms
Frequency response (-3 dB): 35 Hz ~ 20 kHz
Power handling: 100 watts
Crossover frequencies: 2.3 kHz
Weight: 29.6 kgs/65.3 lbs. (including base) per piece
Dimensions (w x d x h): 23.8 cm x 32.5 cm x 118.7 cm
; 9.4" x 12.8" x 46.7"

Electronics



P-307A
2004 Editor's Choice Awards — Audio Vedio



R-1.5
2006 Editor's Choice Awards — Sensible Sound
2005 Five Star Award — Hi Fi World
2004 Editor's Choice Awards — Audio Vedio



P-307A

Power consumption: 7W maximum
Main voltage: 100V,120V, 200V, 230V or 240V
AC@50/60Hz
Inputs: 7 stereo single-ended(RCA)
1 stereo single-ended(RCA)phono
Outputs: 2 stereo single-ended(RCA)
Gain: 14.3 dB
S/N: 105 dB
Input overload: 2.34V rms
Input impedance: 47k Ohm
Outputs impedance: 120 Ohm
Maximum output (MAIN outputs): 15.3V rms
Frequency Response: 10Hz~100kHz
Weight: 4kgs /8.8 lbs.
Dimensions (w x d x h): 43 cm x 28.8 cm x 7.9 cm
; 16.9" x 11.3" x 3.1"



R-1.5

8 Ohm/20Hz20kHz: 150W(ch)
4 Ohm/20Hz20kHz: 260W(ch)
Damping factor: >175 (single ended)
Circumgyration: >40V / uS
Power supply (4 Ohm): >16A
Transient power supply: >75A
S/N ratio: 100 dB
Frequency (20Hz20kHz): +/- 0.1dB
Weight: 37 kgs /81.6 lbs.
Dimension (w x d x h): 48 cm x 48 cm x 22.5 cm
; 18.9" x 18.9" x 8.9"

Accessories



SR-4

Weight: 44kgs/97 lbs.
Dimensions (w x d x h): 64 cm x 50cm x 100 cm
; 25.2" x 19.7" x 39.4"



RWS-708

Weight: 18kgs/39.7 lbs.
Dimensions (w x d x h): 33 cm x 33cm x 60~70 cm
; 13" x 13" x 23.6"~27.6"

**For all X series , BE-718, BE-718 diamond



RWS-729

Weight: 18kgs/39.7 lbs.
Dimensions (w x d x h): 33 cm x 33cm x 60~70 cm
; 13" x 13" x 23.6"~27.6"

**For all X series , BE-718, BE-718 diamond



RWS-777

Weight: 24kgs/52.9 lbs.
Dimensions (w x d x h): 38 cm x 38cm x 60~70 cm
; 15" x 15" x 23.6"~27.6"

**For CP-777 Diamond



About Us

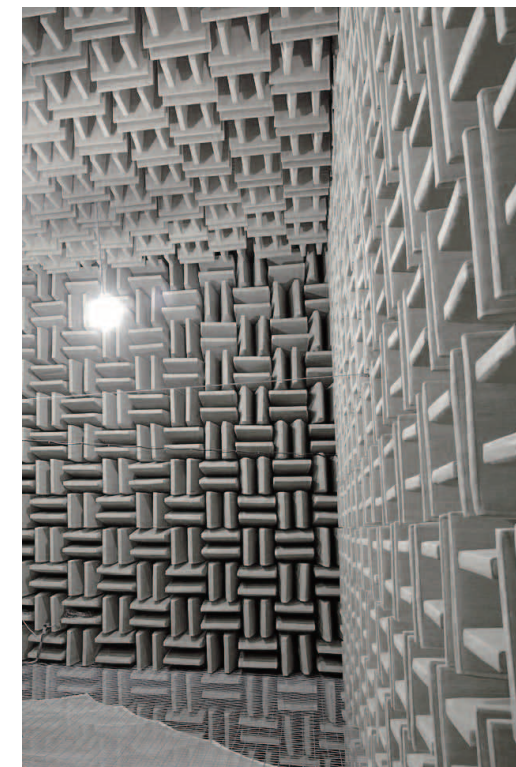
Established in 1972 in central Taiwan, USHER has grown from a small audio enthusiast's shop to one of the most respected name in the global audio scene. Today, at its newly completed factory in Taichung, USHER continues to develop and manufacture audio amplifiers and loudspeakers of cutting edge design, to its exacting high standards.

Owner and engineer-in-chief, Mr. Lien-Shui Tsai, holds a unique view towards high end audio. He believes that no-compromise audio components can and should be friendly price-wise to all music lovers and audiophiles; They should be a luxury most people can afford.

The secret to USHER's ascend to the cream of the crop in high end audio lies in the fact that USHER always takes a scientific approach to engineering, and supports it with imagination and extensive, pains-taking experiments and listening tests. The result of USHER's thorough engineering and quality control is products of exceptional performance and reliability. Many of the USHER amplifiers built in the '70s are still actively serving their owners today.

Audio Is No Black Magic At USHER: Correlating the measurements and the perceived performance by human ears

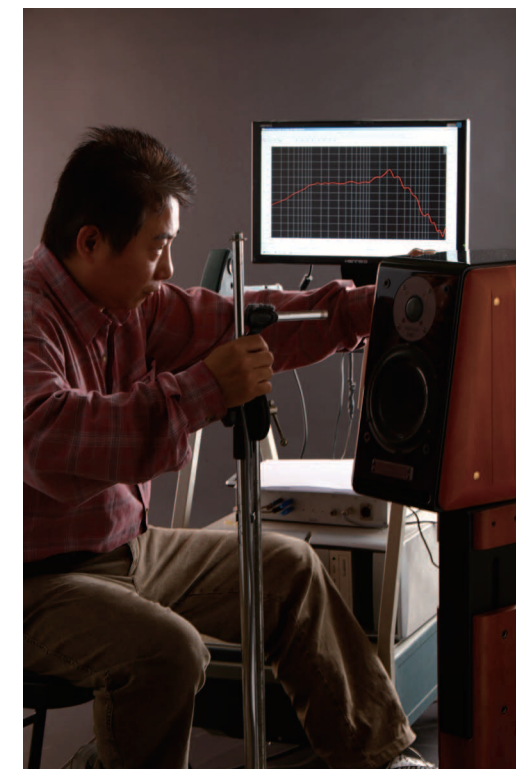
At USHER, we believe audio is a science. There was a time in the history of audio when measurements couldn't really explain a lot of the perceived listening impressions, but we discovered, through extensive listening tests, experiments and measurements, that it was because people didn't measure the parameters that really matter. For years, USHER have worked hard on correlating measurements and perceived performance. The initial success USHER have achieved in this pursuit has allowed us to greatly improve the effectiveness and precision of our R&D work, making possible an even more friendly pricing policy, despite the ever-heightening level of quality in our products' absolute sonic performance.



The anechoic room at USHER's newly completed factory; We believe this to be one of the best and largest anechoic facilities in the world

A Relentless Quest For Precision and Musicality: Tools and mindset

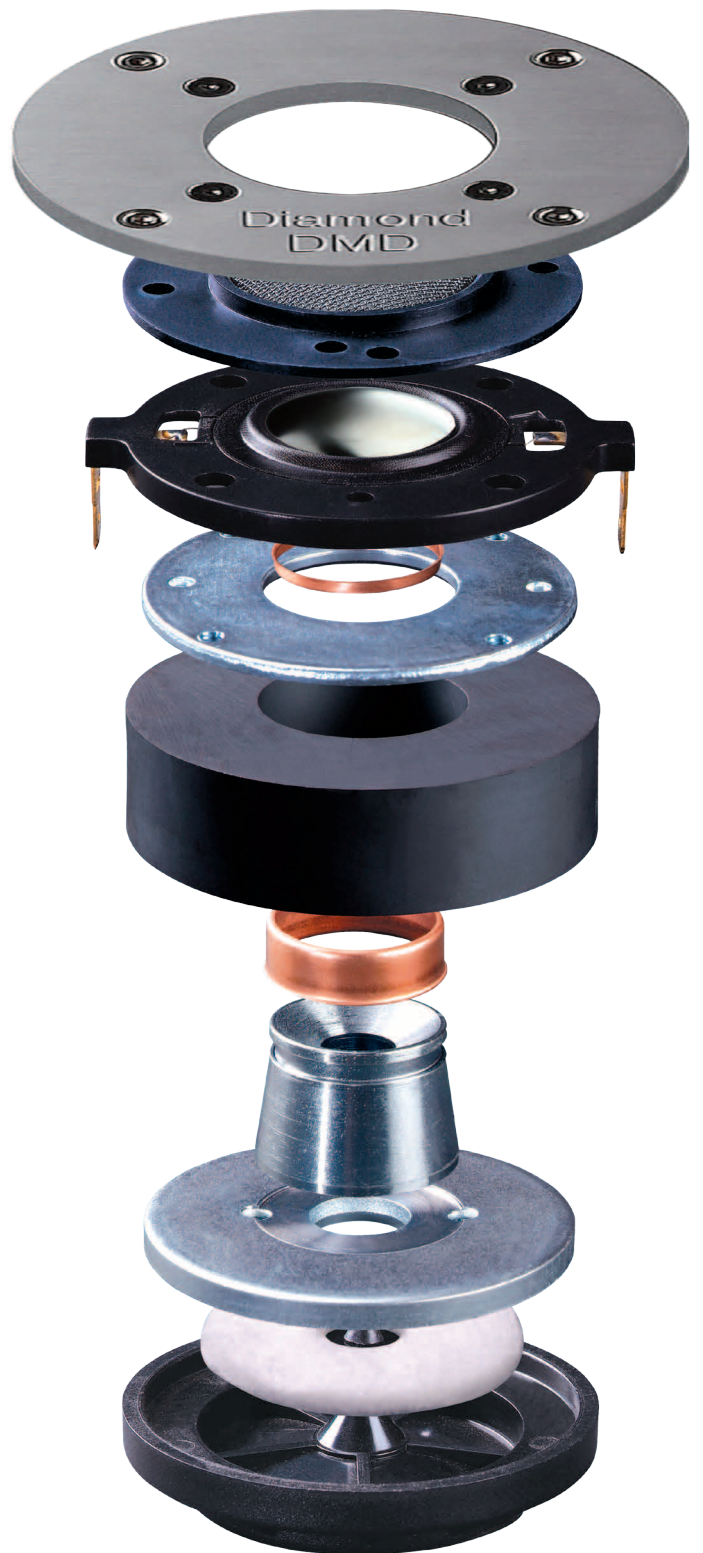
Almost all first-time visitors to USHER's labs and factory were awe-struck by the quality and quantity of the precision equipment they saw in service. Perhaps they would be even more surprised if they knew the amount of research and trainings put into utilizing these pieces of high precision equipment. As the saying goes, "There are no accidents." At USHER, we don't leave it to chance to improve or to innovate. We even developed a computer-based measuring system of our own, which has since become an industry standard and is now widely used at many factories in Asia.



The BE-718 Diamond under testing at USHER's R&D labs

An exploded view of USHER's tweeter. All USHER tweeters employ USHER's Symme-Motion technology to ensure a symmetrical motion cycle and thus a faithful reproduction of the input signal.

*Please note that all the awards listed were given to the specific year's production model, as reviewed



USHER
www.usheraudio.com

USHER AUDIO TECHNOLOGY
67 Kai-Fong Street Sec. 1 Taipei 100 Taiwan
Tel: 886-2-2381-6299 Fax: 886-2-2371-1053 E-mail: usher@ms11.hinet.net