PL IN-WALL II

Owners Manual

MONITOR AUDIO®

Contents

Introduction from the Technical Director

"How can a loudspeaker be made to sound more natural? This is the question that drives our endeavor day-in, day-out. We're motivated by the quest to eliminate distortion from the most important element in your audio system. How far we've come can be measured by the sound of Platinum II: the most accurate and beautiful loudspeakers Monitor Audio has ever made. Supported by painstaking analysis and a lifetime of listening, their evolution has refined our technologies, inspired new discoveries and achieved advances in every area of design - electrical, mechanical, magnetic, acoustic and aesthetic. The result is a speaker range of exceptional quality, dedicated to raising your emotional contact with music and film sound in all its natural glory. Built by audio lovers, for audio lovers, Platinum II provides our answer to the primary challenge of speaker design. To the big question we simply reply "like this"! "

Dean Hartley
Technical Director

Company History

Since 1972, Monitor Audio's near fanatical commitment to quality in every aspect of loudspeaker design coupled with its willingness to innovate has inspired global recognition and acclaim. Daring to challenge design orthodoxy has been its signature approach.

When Monitor Audio launched its R852MD loudspeaker – the first model to incorporate a metal dome tweeter - it caused quite a stir. Until that time, most metal domes were single-metal types made from copper or titanium and virtually all sounded unconvincing. The R852 used an aluminium-magnesium alloy dome and sounded significantly better and smoother than all of its single-metal rivals. It also incorporated ferro-fluid damping/cooling of the metal voice-coil former and a vented voice coil mechanism for better heat dissipation. These radical design elements formed the basis for successive generations of C-CAM® metal domes.

By consistently refining and applying the technology, Monitor Audio has become the world's foremost proponent of metal dome drivers. Monitor Audio designs everything in house at their world headquarters in England, so that it can optimise the incomparable blend of virtues that makes Monitor Audio loudspeakers unique: clean, dynamic sound, superior build quality and innovative design. Because they share a philosophy of excellence and a consistency of quality and voicing, loudspeakers of different types: on-wall, in-wall, floor and stand-mounting, may be used together to create the perfect acoustic blend for any room.

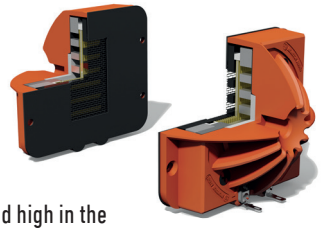
In the strength and depth of Monitor Audio's evolving product portfolio, the ideal of a universal whole-house loudspeaker brand finds true expression. Decades of accumulated expertise and knowledge have refined the rare mix of innovation, reliability and sheer performance that has propelled the brand to global status and on which aficionados of music and movie sound have come to rely.

Technologies

MPD (Micro Pleated Diaphragm) High Frequency Transducer

AMT design was first invented by Dr Oskar Heil in the 1970s. However, all designs typically suffer from a null in the frequency response around 40kHz. Using FEA modelling techniques, Monitor Audio engineers were able to find the root cause of this null and develop a solution. This phenomenon was eliminated, allowing the driver to operate with uniform output to over 100 kHz. We call this unique innovation Micro Pleated Diaphragm (MPD).

The folded MPD diaphragm exhibits a surface area typically eight times that of a conventional dome tweeter, and around thirteen times that of a pure ribbon tweeter. This large surface area improves the conducted heat path and the open front increases the convection. The power handling is also improved by the high sensitivity of the tweeter. The AMT design also provides a constant non-reactive load to the amplifier, this means it's able to deliver power more efficiently with lower distortion.



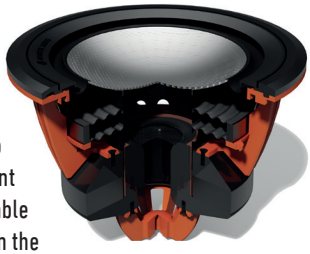
The MPD is designed to bend and does not rely on its structural integrity to extend high in the frequency range. There are no break up modes throughout the entire frequency range, exhibiting clean sonic character, free from any harmonic artefacts.

C-CAM® (Ceramic Coated Aluminium/Magnesium)

C-CAM is an innovative alloy material originally developed by the aerospace industry. It exhibits ideal qualities for use as loudspeaker cones, being extremely rigid, yet light enough to yield high overall efficiency. C-CAM is formed from an alloy of aluminium and magnesium, which undergoes stress-relieving processes in manufacturing to avoid surface deformation and molecular weakness. A layer of pure ceramic (alumina) is depleted onto the surfaces to produce a completely rigid exterior. C-CAM cones are designed to have high resistance to bending stress. When formed into a cone, C-CAM material provides increased clarity and reduced distortion compared to conventional cone materials.

RDT®II (Rigid Diaphragm Technology 2nd Generation)

RDT II is a composite 'sandwich' structure made from ultra-thin low-mass skins, bonded to a honeycomb NomexR core material. The overall thickness of the RDT II diaphragm is only 2mm, yet it exhibits 150 times the strength of a conventional loudspeaker cone. RDT II is a unique, innovative development conceived by Monitor Audio engineers for the new Platinum II series. It uses two skin materials with dissimilar mechanical properties. C-CAM is used for the front skin, while the rear skin is made from a woven carbon fibre. This combination is able to reduce distortion by over 8dB above 300Hz, which equates to a 60% reduction in the energy of harmonic components, making RDT II the lowest distortion cone technology in Monitor Audio's history.



ARC® (Anti-Resonance Composite)

A cast thermo-set polymer loaded with minerals to provide very inert, optimally damped components. This material is ideal for high-end acoustic applications where a high degree of structural rigidity and vibration damping is required. ARC is used for mid-range housings and baffle components. ARC is a unique material, developed specifically by Monitor Audio engineers for the Platinum II series. Its properties ensure energy is damped out and not emitted as high-Q resonance.

Unpacking

Before you unpack your speakers, please make sure that there is plenty of clean floor area available. Pictorial guides printed on the outer transit carton show you the ideal method for unpacking. Please see below for more information.

WARNING: DO NOT attempt to lift the speakers alone. The recommended number of people is printed on the outer carton.

Lay the box down on the floor so the opening is on the side facing up. Open the outer carton and then use the handles of the inner cardboard sleeve to lift the speaker and packaging out of the box. Once clear, remove the polystyrene end caps and then the cloth bag.

Setting Up

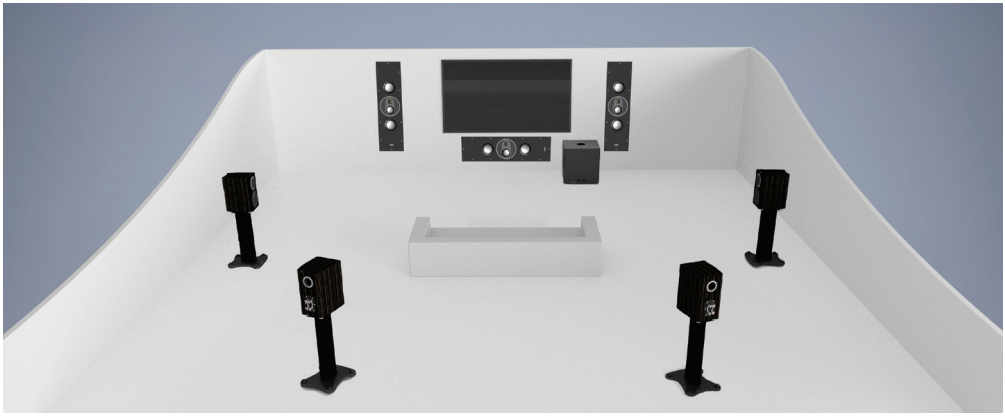
2-Channel Positioning

When arranging a 2-channel system, the listening position and the loudspeakers should form an equilateral triangle. The speakers should be positioned approximately 6 - 10 feet (1.8 - 3m) apart. They should be positioned so that the tweeter is at approximate ear height when you are in your listening position.

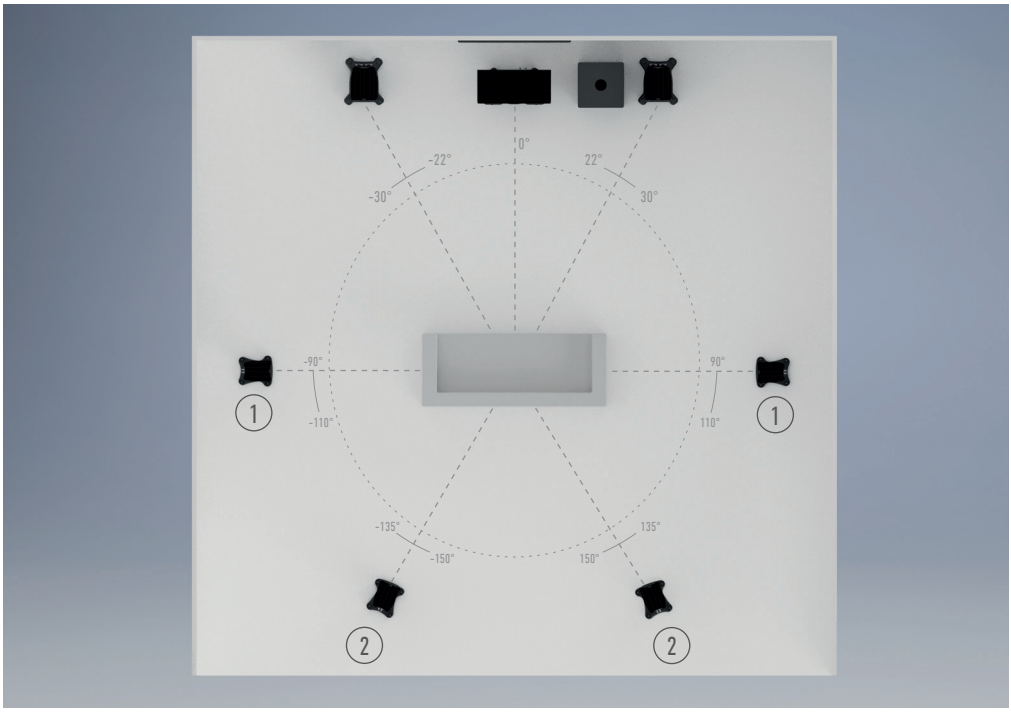
AV Positioning

Please refer to the illustration below and opposite for the ideal angles and positions of each speaker in your surround system.

The centre channel will need to be as close to the screen as possible to ensure the sound does not sound disjointed.



An example of a Platinum 7.1 system consisting of Platinum In-Wall II's front Left - Centre - Right and PL100 II surrounds, with the PLW215 II subwoofer.



1. Side surround speakers
2. Rear surround speakers

A 7.(1) surround system will make use of side (position 1) and rear (position 2) speakers to create a full 360° soundstage, if setting up a 5.(1) system you can place your surrounds in position (1) or (2).

FX Speakers

If you wish to use FX speakers in an AV system with Platinum Series II we would recommend the Gold FX, which not only will be a good timbre and tonal match with your Platinum II speakers but is also available in the same selection of high quality finishes. The FX can also be flush-mounted on side or rear walls.

The Gold FX in high gloss Piano Black

When compared to a traditional surround speaker the FX offers the addition of spatial sound dispersion through the use of side firing tweeters which can be used in Di-Pole (spatial sound) or Monopole (direct firing) mode.

An additional FX solution to continue with the Custom Install theme of the Platinum In-Wall II's is the C380 FX. This is also a bi-pole / di-pole speaker.

For more information on the Gold FX and C380 FX please refer to our website: www.monitoraudio.com

Tweeter and Mid Range Enclosure Rotation

The Platinum In-Wall II is supplied in a left/right vertical configuration, but features a rotational mid and tweeter assembly when being used as a centre channel.

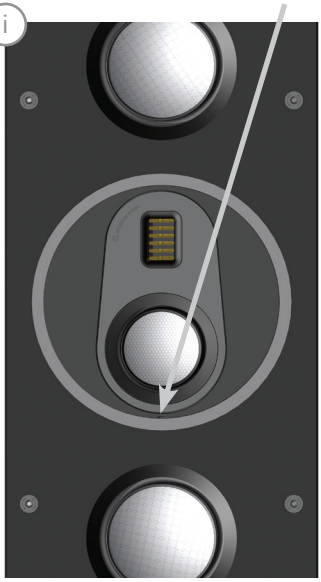
Follow the instructions below to rotate the mid and tweeter assembly.

Remove metal trim. (Held in place magnetically. There is a small tab directly below the mid-range driver.)

Remove 8 screws. (Circled below)

Rotate the whole mid and tweeter assembly 90 degrees anti-clockwise.

i



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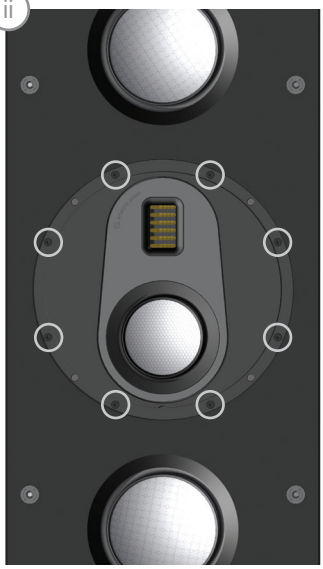

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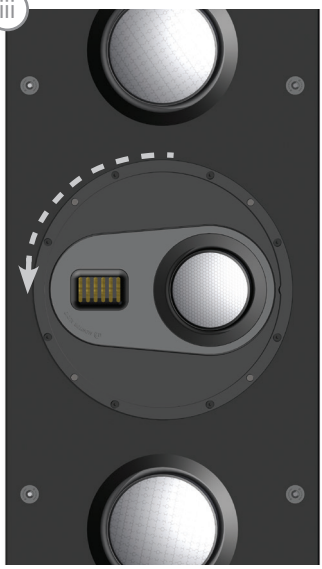

Refit screws (no tighter than 17KgF/cm^2)and then the metal trim.

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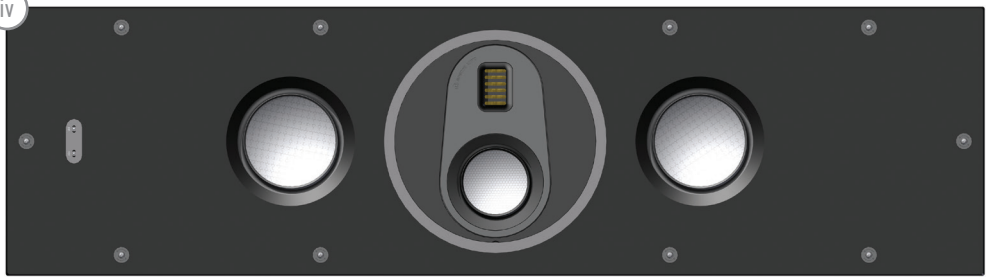

For additional information on installing the Platinum In-Wall II please refer to the Installation Guide.

Connecting Speaker Cables

The Platinum In-Wall II has one set of terminals for single wiring. Single wiring is achieved by using a single set of cables to the binding posts on the side of the speaker. Internally the speaker crossover guides the frequencies to the appropriate driver/tweeter - low frequencies to the bass drivers, mid frequencies to the mid/bass driver and high frequencies to the tweeter.

The binding posts are the sprung for ease of use and will accept bare wire only.

Press down on the binding post to reveal the through hole and pass the bare wire through the hole. Release the binding post and it will automatically clamp the cable in place. Ensure there are no loose strands of cables to cause a short circuit.

Level Adjustment Switches

The Platinum In-Wall II comes with a pair of switches to adjust the mid and high frequency levels. These are located on the front of the cabinet at the bottom (when positioned vertically), and adjustment will either boost or attenuate the mid-range and tweeter levels by +/-1dB. There are separate switches for each unit, and experimentation is recommended to achieve the perfect combination for your environment.

Running-In Your Platinum In-Wall II

Run your speakers in by playing normal music or by using our running-in CD: the System De-Tox Disk, at low-mid listening levels for approximately 50-70 hours play time. You may find the sound will continue to improve even after the 70 hour mark.

This can be done naturally over time: like a fine wine the performance will improve with age.

For information on Monitor Audio's System De-Tox disk please refer to our website: www.monitoraudio.com

Warranty

Both the craftsmanship and the performance of this product is covered by the manufacturer's warranty against manufacturing defects provided that the product was supplied by an authorised Monitor Audio retailer under the consumer sale agreement. For the period of cover please refer to the product page on our website: monitoraudio.com for the product you have purchased.

When purchasing Monitor Audio products, please keep your receipt of purchase safe, as this validates your warranty.

Specifications

	PL IN-WALL II
System Configuration	4 driver, 2-way
Frequency Response (-6db)	52Hz - 100kHz
Sensitivity (1W@1M)	90 dB
Impedance	4 Ohms Nominal (3.7 Ohms Minimum @ 2.8kHz)
Maximum S.P.L (per pair)	117 dBA
Power Handling (R.M.S)	200 W
Recommended amplifier requirements	100 - 200 W
Bass Alignment	Sealed Cabinet
Mid/ H.F Crossover Frequency	4.1 kHz 3rd Order (18dB/Octave)
Bass/ Midrange Crossover Frequency	700 Hz 2nd Order (12dB/Octave)
Drive Unit Complement	2 x 6.5" long-throw RDT®II bass drivers 1 x 4" RDT®II mid-range driver 1 x MPD high frequency transducer
Fixings	10 x Tri-grip™ Dog leg type fixing system
Cut Out Dimensions (H x W x D)	1175 x 300 x 97.5mm (46 1/4 x 11 13/16 x 3 13/16 inch)
Overall Dimensions (H x W x D)	1205 x 330 x 102 mm (47 7/16 x 13 x 4 inch)
External Dimensions (inc grille)	1205 x 330 x 116 mm (47 7/16 x 13 x 4 9/16 inch)
Weight (each)	27kg (59.4 lb)

Monitor Audio reserves the right to alter specifications without notice.

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Designed & Engineered in the United Kingdom
Made in China

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