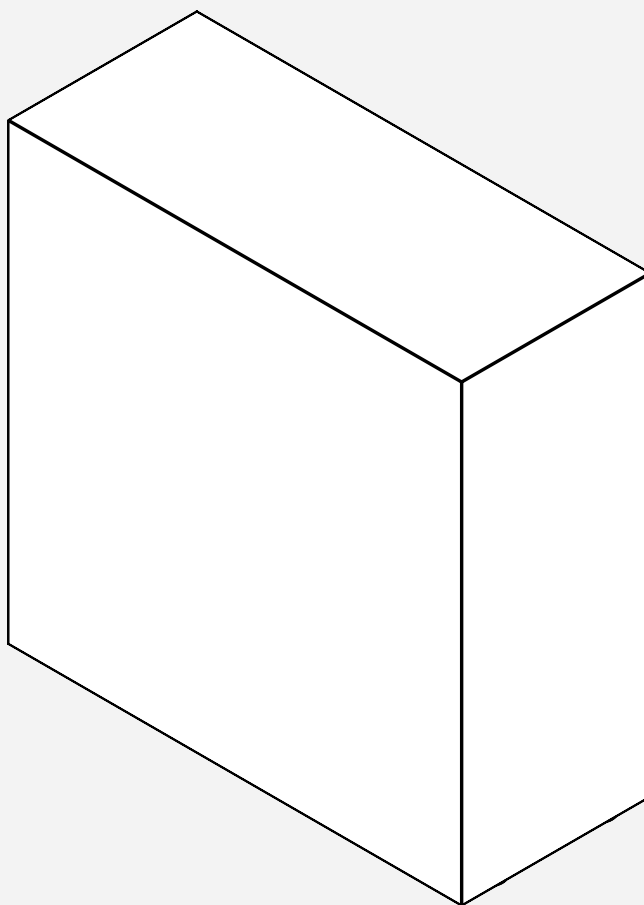


artcoustic.com

Artcoustic^{AC}

SUBWOOFER SERIES

Owners manual



WELCOME TO THE WORLD OF ARTCOUSTIC

Congratulations with your purchase of the Artcoustic Sub Series Subwoofer.

The Artcoustic Subwoofers Series has an efficient passive double tuned bandpass design, producing a fast, dynamic bass response and exceptional musical authority, easily integrated into any small to large Artcoustic system.

The Artcoustic Subwoofer Series is a low resonance frequency 4th order bandpass design, which ensures powerful and clean bass.

The Artcoustic Subwoofer Series fits well into a remarkably small projection screen installation space, featuring a single or dual high-quality 10" bass unit, mounted within a specially tuned, elegant and contemporary cabinet, offering discrete floor, cabinet or wall placement. This technology allows superb output performance to be possible in a cabinet much smaller than would otherwise be required.

Nearly 20 years of subwoofer technology and acoustic evolution, has merged into the most advanced and powerful subwoofer series ever produced by Artcoustic.

The Artcoustic Subwoofer Series delivers amazing bass, ideal for professional applications, such as recording and film studios, dedicated cinemas and fixed installations in general. Employing a single or dual long-throw woofer, capable of reproducing low frequency signals accurately and effortlessly. For larger rooms, or where a higher SPL is required, use multiple units.

Thank you for purchasing an Artcoustic product.

All the best,
The Artcoustic Team

FEATURES

SUBWOOFER SERIES

The Artcoustic Subwoofer Series is ideal for use in high-end installations where sound quality is paramount, such as mid-field to full-space studio monitoring, for private cinema installations, and for commercial use in bars, restaurants and corporate presentation facilities, including commercial movie theatres.

LONG THROW BASS UNITS

HIGH LONG TERM POWER
HANDLING

VERY LOW DISTORTION

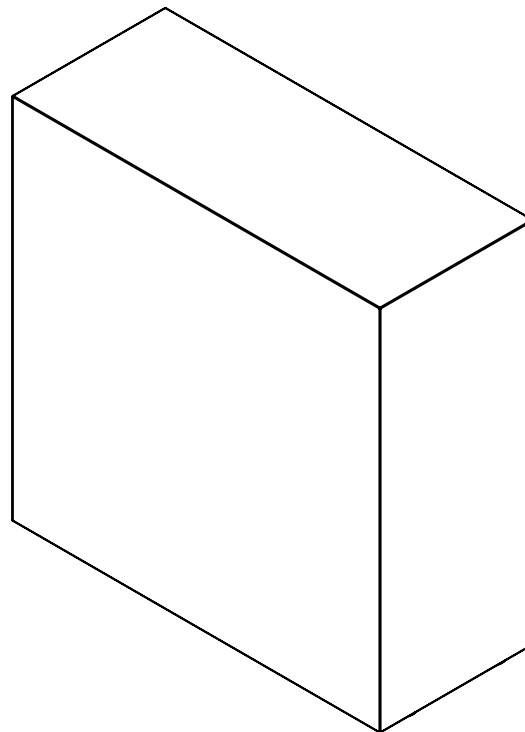
VERY HIGH SPL

REMARKABLE DYNAMIC RANGE
AND TRANSIENT RESPONSE

HEAT DISSIPATION, COMBINED
WITH REDUCED DISTORTION
MOTOR

FAST EASY AND SIMPLE
INSTALLATION

SUITABLE FOR A WIDE RANGE OF
APPLICATIONS

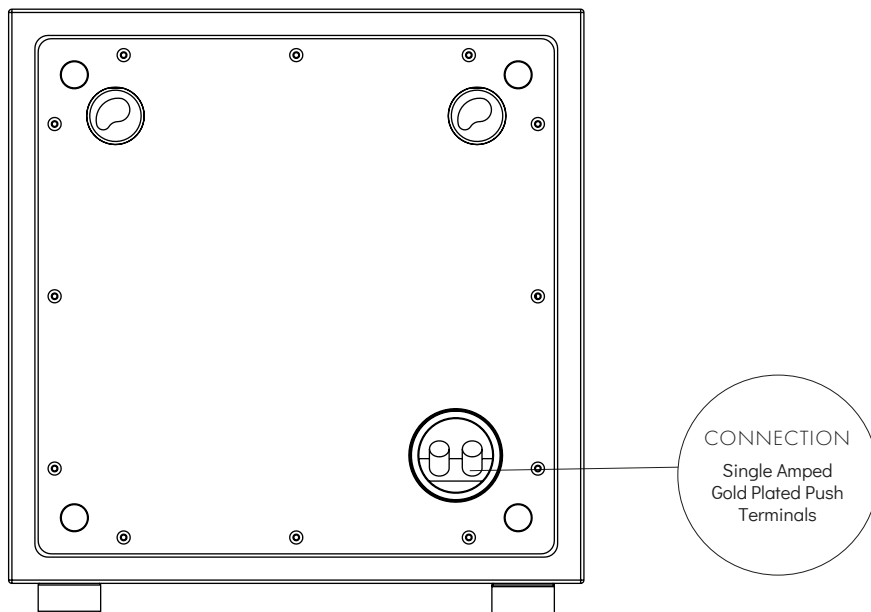


SPECIFICATIONS

SUB Z SUBWOOFER


Artcoustic Sub Z is the smallest subwoofer in our line up, this subwoofer delivers amazing bass, ideal for smaller installations, residential TV setups and smaller sized cinemas, commercial installations, such as bars, restaurants and cafés.

Employing one 10 inch long-throw woofer, combined with the Artcoustic in-house designed 4th order bandpass technology, making this sub capable of reproducing low frequency signals accurately and effortlessly, with high power handling and extremely low distortion, right down to 35 Hz.




The Artcoustic Sub Z subwoofer is ideal for use in high-end installations where sound quality is paramount. For higher output, use multiple units.

TRANSDUCER



LF 1 x 10 inch
long-throw cone

MAXIMUM POWER



160 Watt

Input Impedance
Nominal Minimum 8 ohms

OPERATING RANGE

35 Hz — 120 Hz

-3dB 35 Hz

NOMINAL BEAM WIDTH




Omni-directional

AXIAL SENSITIVITY

LF 94 dB
(half space SPL)


Calculated Axial
Output Limit
(half space SPL)
Average Peak 110dB

FINISH



Cabinet: Black, White,
RAL, NCS, Gloss.

DIMENSIONS



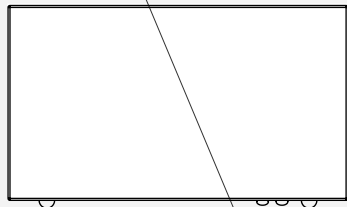
H: 350 W: 350 D: 200mm

WEIGHT

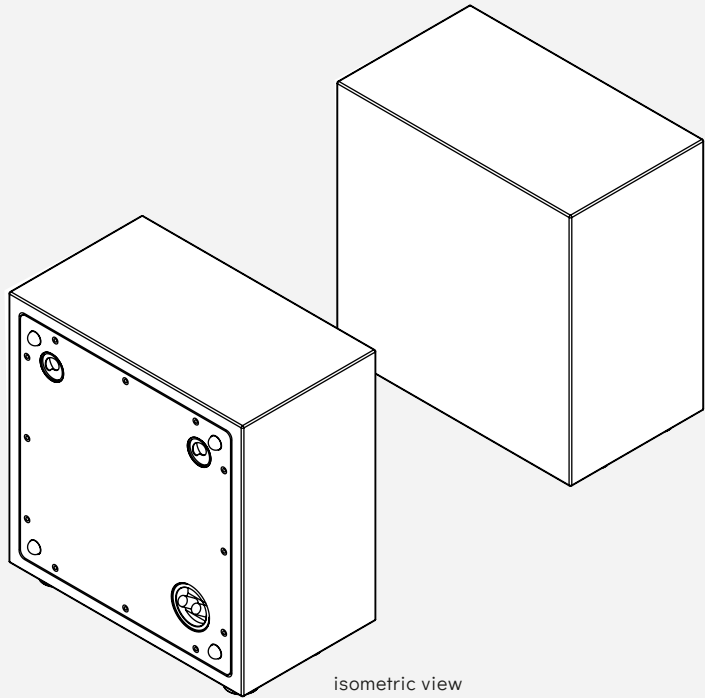


10kg

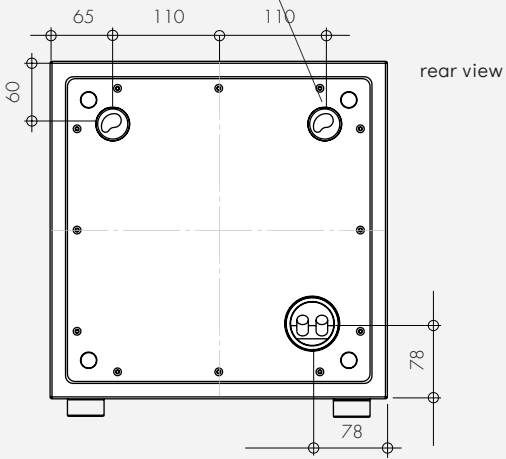
SCHEMATICS



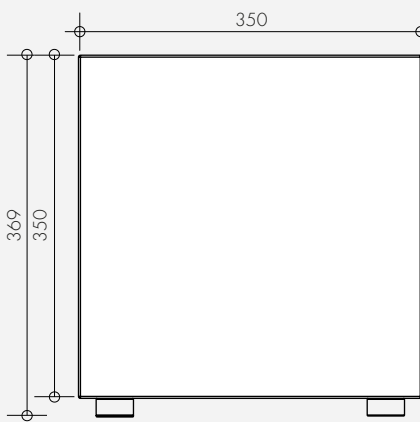
top view



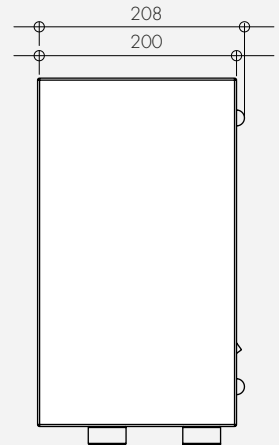
isometric view



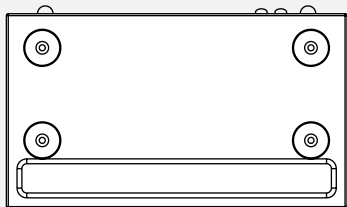
rear view



front view



side view



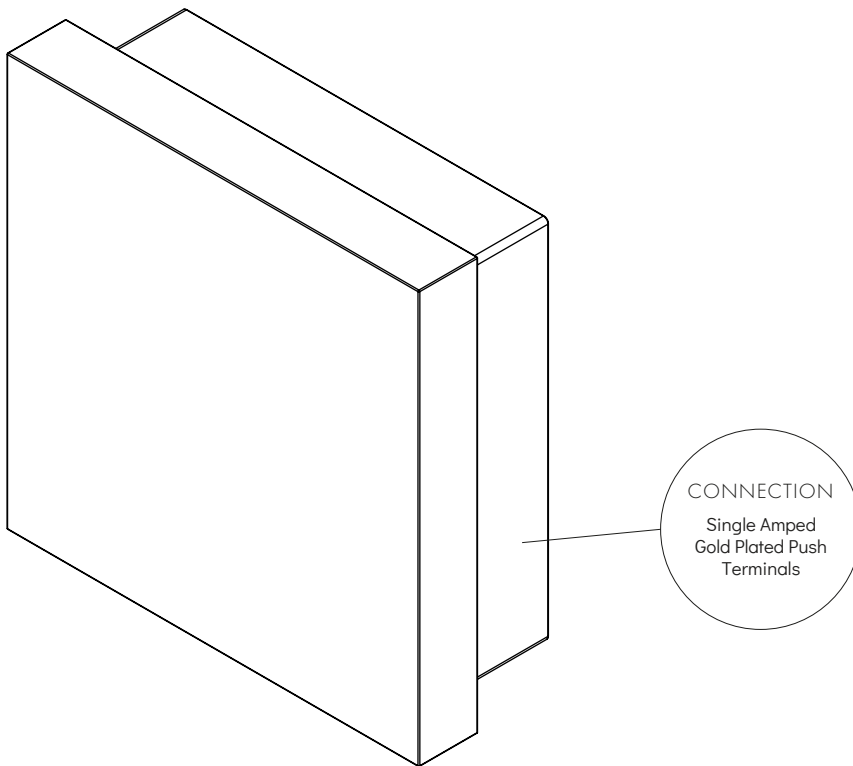
bottom view

SPECIFICATIONS

SUB Z-IWS IN-WALL SUBWOOFER

Artcoustic Sub Z-IWS is the slimmest subwoofer in our line up, this in-wall subwoofer delivers amazing bass, ideal for smaller installations, residential TV setups and smaller sized cinemas, commercial installations, such as bars, restaurants and cafés.

Employing one 10 inch long-throw woofer, combined with the Artcoustic in-house designed 4th order bandpass technology, making this sub capable of reproducing low frequency signals accurately and effortlessly, with high power handling and extremely low distortion, right down to 35 Hz.




The Artcoustic Sub Z-IWS subwoofer is ideal for use in high-end installations where sound quality is paramount. For higher output, use multiple units.

TRANSDUCER



LF 1 x 10 inch
long-throw cone

MAXIMUM POWER



160 Watt


Input Impedance
Nominal Minimum 8 ohms

OPERATING RANGE

35 Hz — 120 Hz

-3dB 35 Hz

NOMINAL BEAM WIDTH




Omni-directional

AXIAL SENSITIVITY

LF 94 dB
(half space SPL)


Calculated Axial
Output Limit
(half space SPL)
Average Peak 110dB

FINISH



Cabinet: Black, White,
RAL, NCS, Gloss.

DIMENSIONS



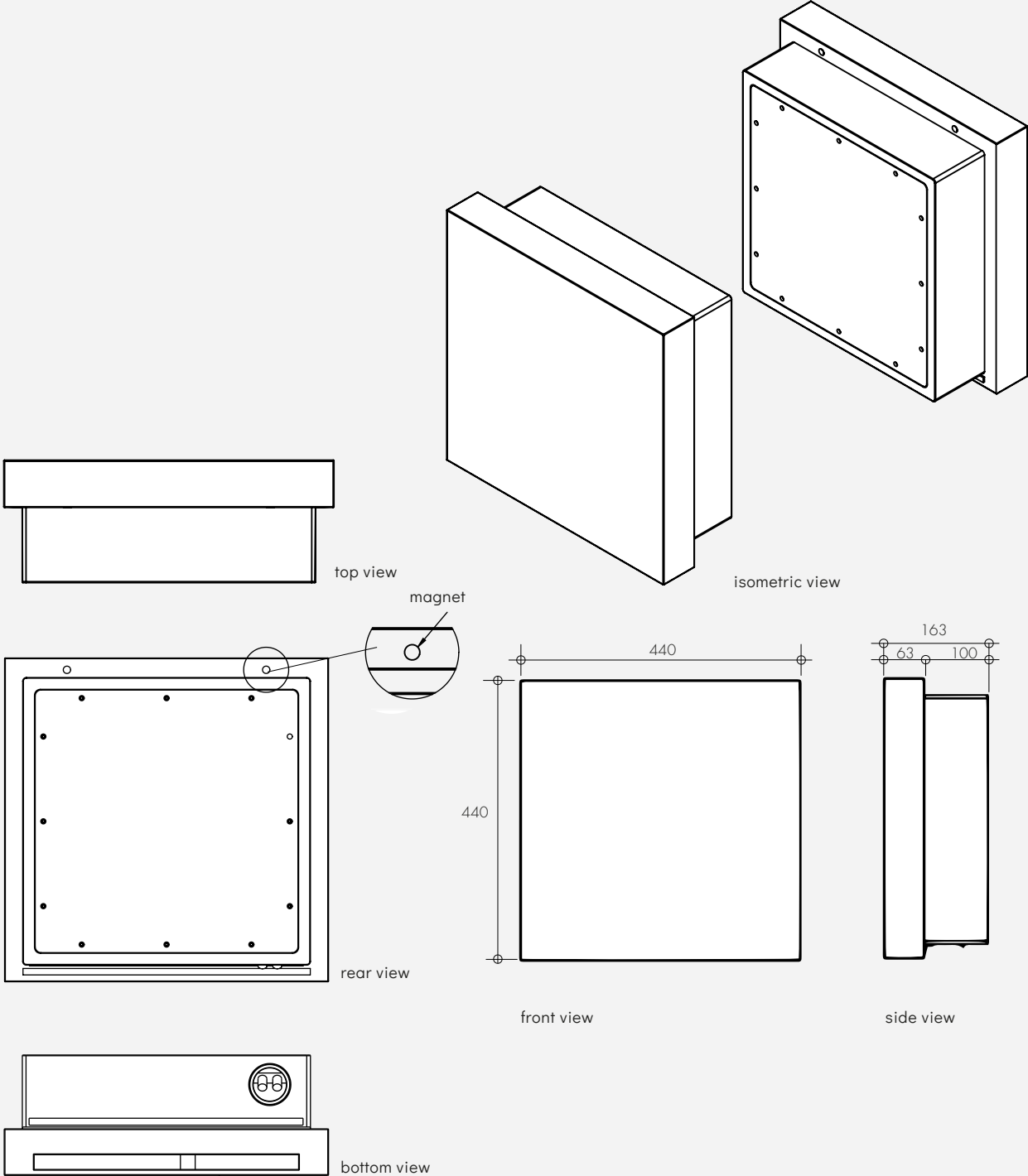
H: 440 W: 440 D: 163mm

WEIGHT



10kg

SCHEMATICS

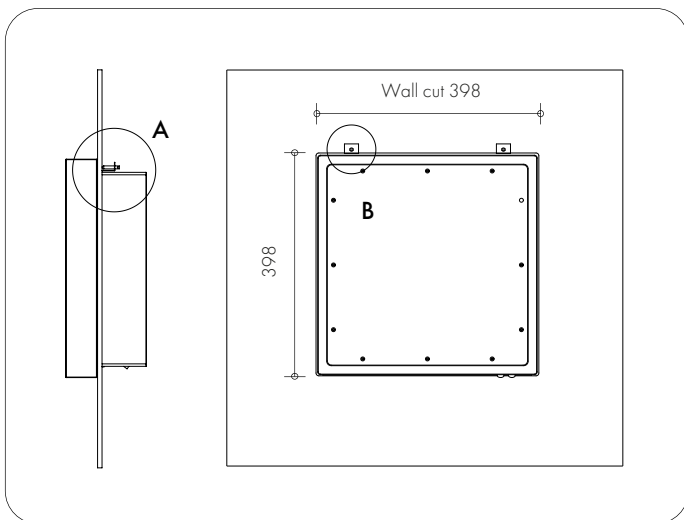


IMPORTANT! DO NOT COVER PORT

MOUNTING INSTRUCTION

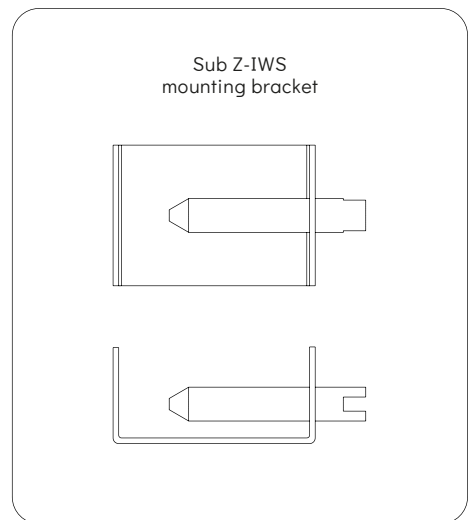
IN-WALL SUBWOOFER INSTALLATION MADE EASY

1



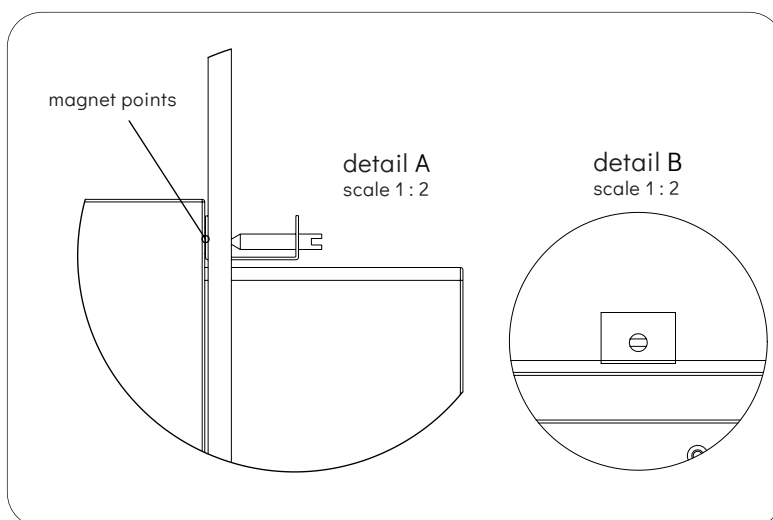
Cut a square hole 398 x 398mm

2

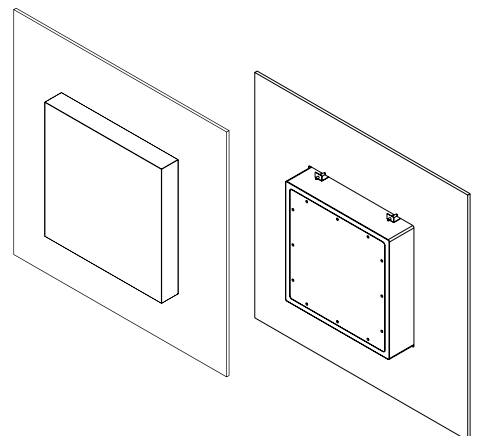


Fix mounting brackets

3



Magnet mount the Sub Z-IWS

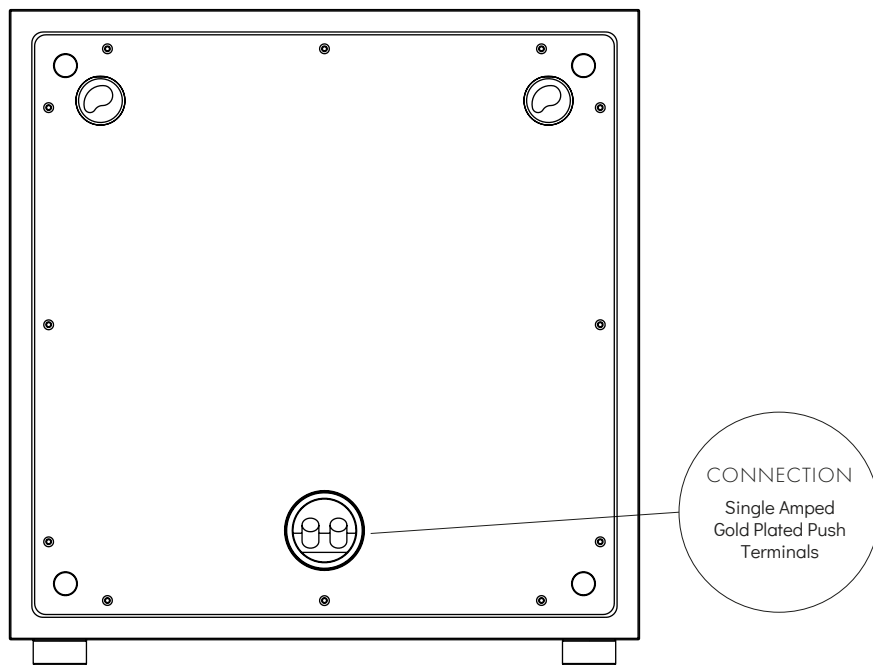


SPECIFICATIONS

SUB 1 SUBWOOFER

Artcoustic Sub 1 delivers amazing bass, ideal for professional applications, such as recording and film studios, dedicated cinemas and fixed installations in general.

Employing one 10 inch long-throw woofer, combined with the Artcoustic in-house designed 4th order bandpass technology, making this sub capable of reproducing low frequency signals accurately and effortlessly, with high power handling and extremely low distortion, right down to 30 Hz.



The Artcoustic Sub 1 subwoofer is ideal for use in high-end installations where sound quality is paramount. For larger rooms, or where a higher SPL is required, use multiple units.

TRANSDUCER

LF 1 x 10 inch
long-throw cone

MAXIMUM POWER

160 Watt

Input Impedance
Nominal Minimum 6 ohms

OPERATING RANGE

30 Hz — 120 Hz

-3dB 30 Hz

NOMINAL BEAM WIDTH

Omni-directional

AXIAL SENSITIVITY

LF 96 dB
(half space SPL)

Calculated Axial
Output Limit
(half space SPL)
Average Peak 115dB

FINISH

Cabinet: Black, White,
RAL, NCS, Gloss.

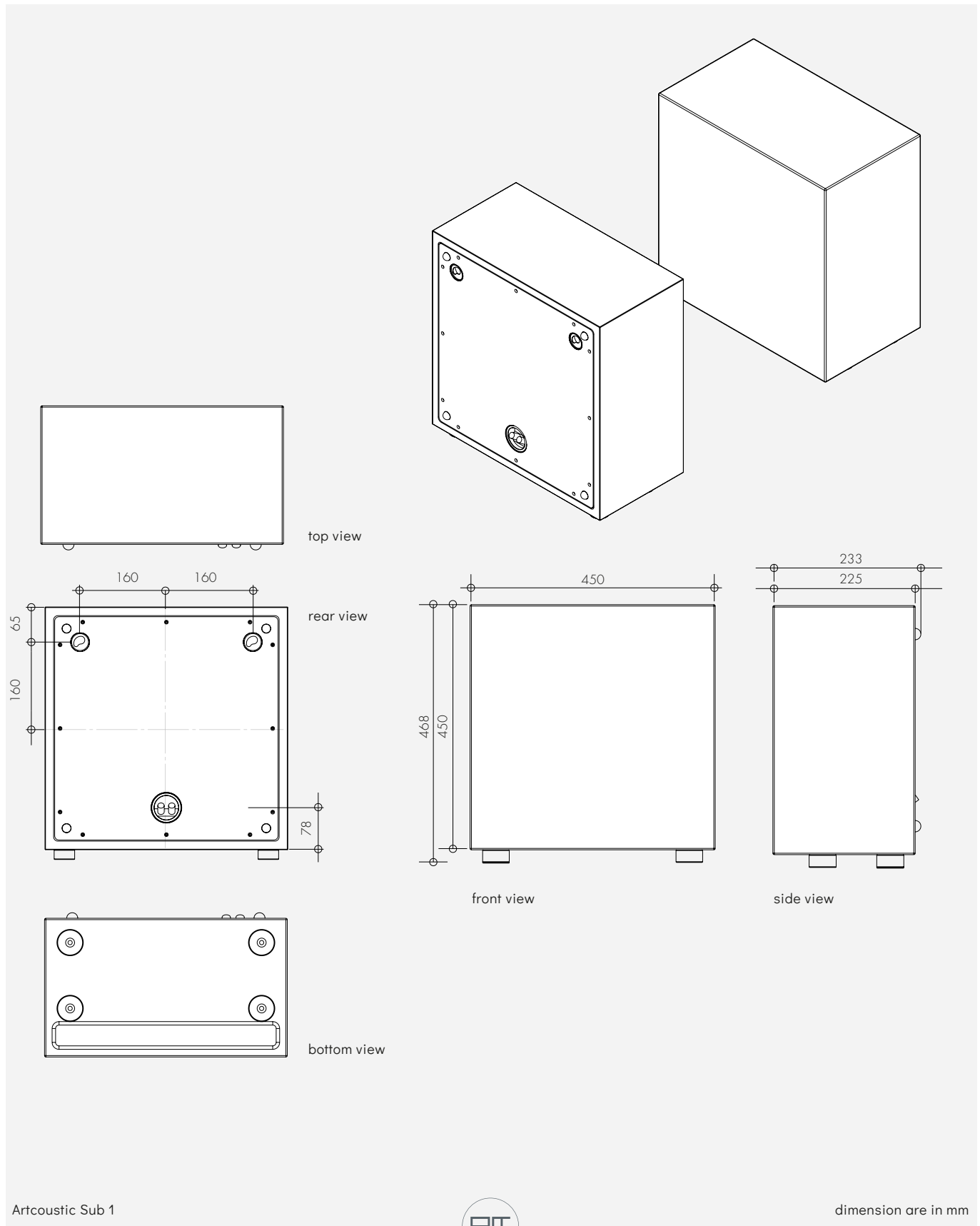
DIMENSIONS

H: 450 W: 450 D: 225mm

WEIGHT

12kg

SCHEMATICS

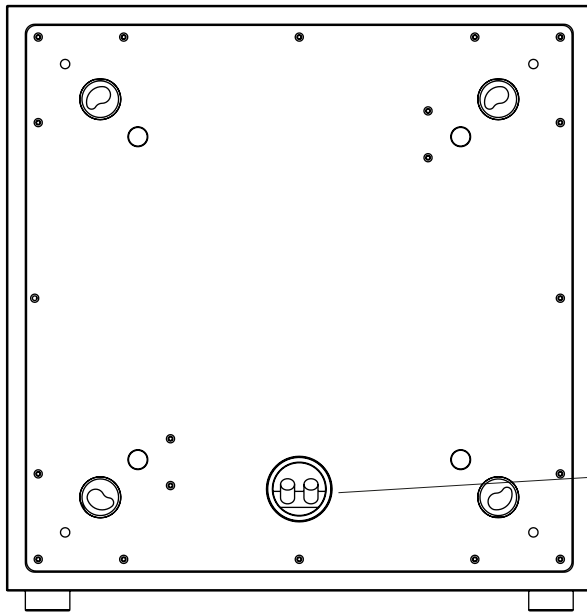


SPECIFICATIONS

SUB 2 SUBWOOFER

For the ultimate in low-frequency performance, the Artcoustic Sub 2 subwoofer delivers awesome bass reproduction. This model changes the way subwoofers are perceived. Employing a single 10" long-throw woofer combined with the Artcoustic in-house designed 4th order bandpass technology, this subwoofer reproduces low frequency signals accurately and effortlessly, with high power handling and extremely low distortion, right down to 27 Hz.

For its size, it is one of the most dynamic, powerful and controlled subwoofers on the market, making it ideal for professional applications, such as recording and film studios, dedicated cinemas and fixed installations in general.



The Artcoustic Sub 2 subwoofer is ideal for use in high-end installations where sound quality is paramount, such as mid-field to full-space studio monitoring, for private cinema installations, and for commercial use in bars, restaurants and corporate presentation facilities. For high SPL requirements, use multiple units.

TRANSDUCER



LF 1 x 10 inch
long-throw cone

MAXIMUM POWER



160 Watt

Input Impedance
Nominal Minimum 6Ω

OPERATING RANGE

27 Hz — 120 Hz

-3dB 27 Hz

NOMINAL BEAM WIDTH



Omni-directional

AXIAL SENSITIVITY

LF 96 dB
(half space SPL)

Calculated Axial
Output Limit
(half space SPL)
Average Peak 116dB

FINISH



Cabinet: Black, White,
RAL, NCS, Gloss.

DIMENSIONS



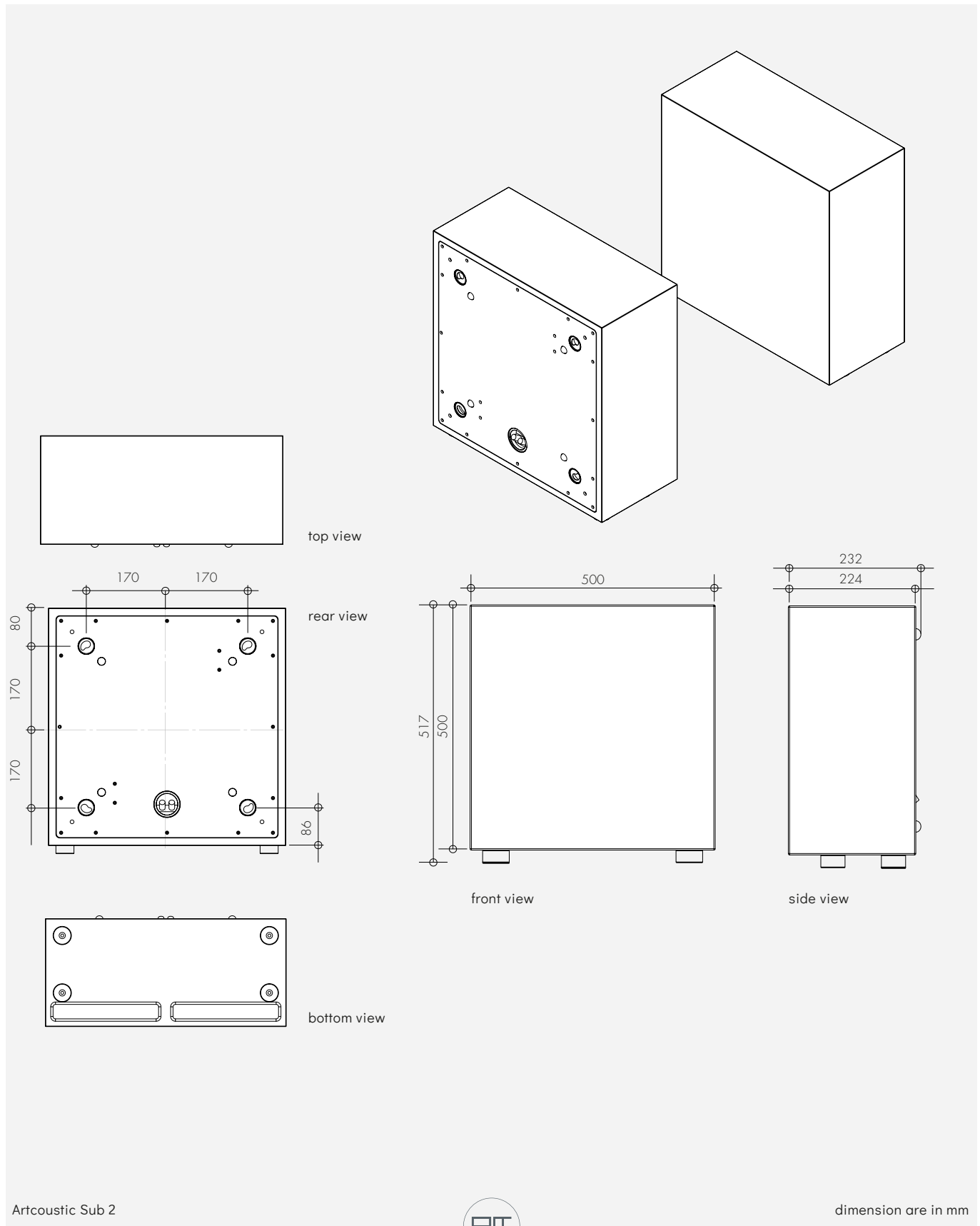
H: 500 W: 500 D: 225mm

WEIGHT



14kg

SCHEMATICS

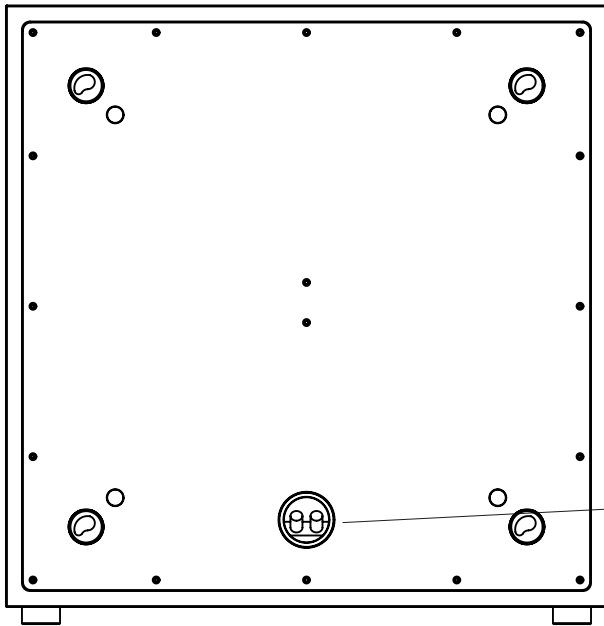


SPECIFICATIONS

SUB 3 SUBWOOFER

For the ultimate in low-frequency performance, the Artcoustic Sub 3 subwoofer delivers awesome bass reproduction. For its size, it is one of the most dynamic, powerful and controlled subwoofers on the market, making it ideal for professional applications, such as recording and film studios, dedicated cinemas and fixed installations in general.

This model changes the way subwoofers are perceived. Employing two 10" long-throw woofers combined with our in-house 4th order bandpass technology, this subwoofer reproduces low frequency signals accurately and effortlessly, with high power handling and extremely low distortion, right down to 20 Hz.



The Artcoustic Sub 3 subwoofer is ideal for use in high-end installations where sound quality is paramount, such as mid-field to full-space studio monitoring, for private cinema installations and for commercial use in bars, restaurants and corporate presentation facilities. For very high SPL requirements, use multiple units.

TRANSDUCER



LF 2 x 10 inch
long-throw cones

MAXIMUM POWER



320 Watt

Input Impedance
Nominal Minimum 14 ohms

OPERATING RANGE

20 Hz — 120 Hz

-3dB 20 Hz

NOMINAL BEAM WIDTH



Omni-directional

AXIAL SENSITIVITY

LF 96 dB
(half space SPL)

Calculated Axial
Output Limit
(half space SPL)
Average Peak 122dB

FINISH



Cabinet: Black, White,
RAL, NCS, Gloss.

DIMENSIONS



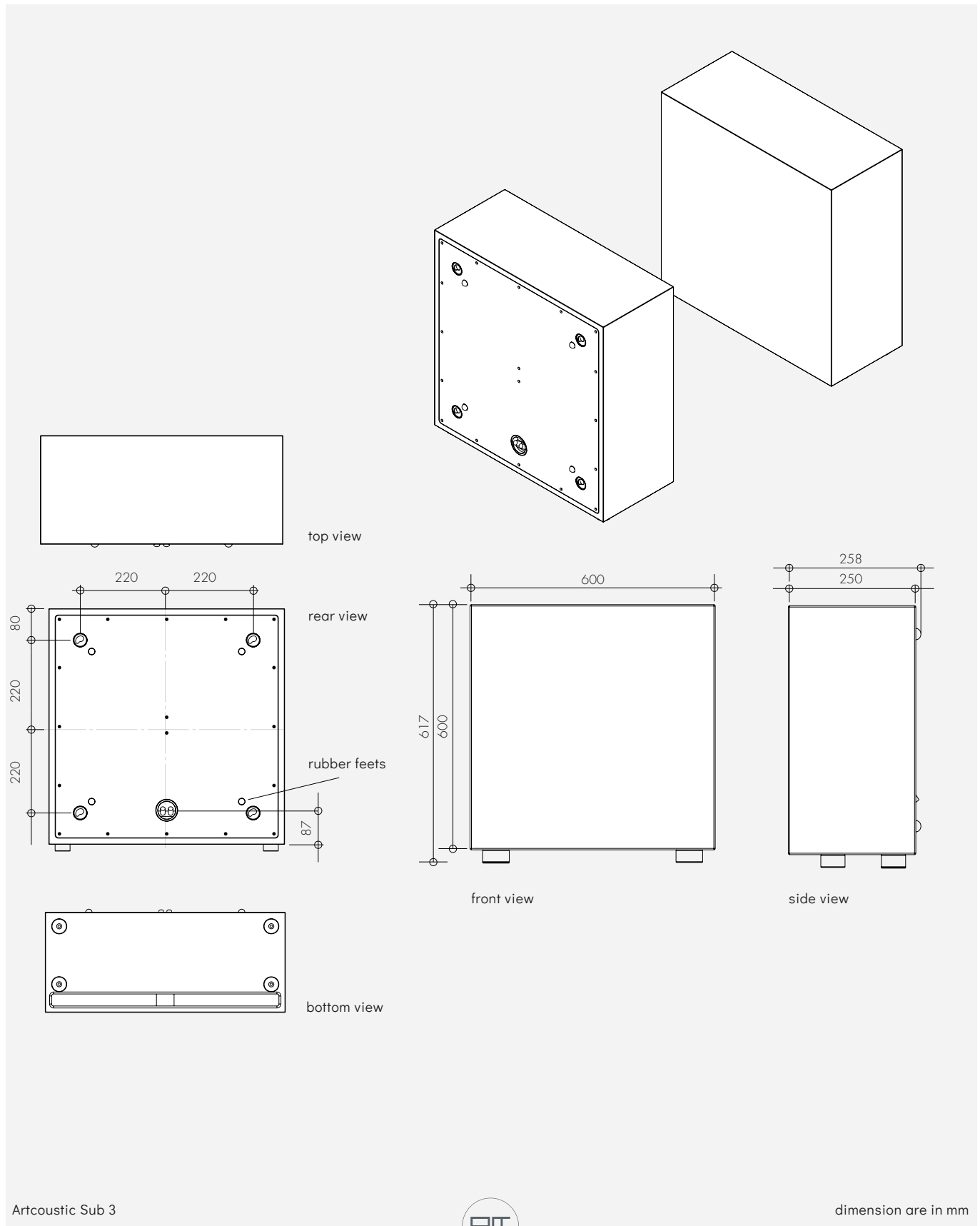
H: 600 W: 600 D: 250mm

WEIGHT



20kg

SCHEMATICS



WIRING AND PLACEMENT GUIDE

THE FIRST RANGE OF SUBWOOFER SPECIFICALLY DESIGNED TO HELP ADDRESS ROOM MODES

Artcoustic have helped to create some truly stunning cinema systems, and have used all that experience to develop a groundbreaking range of new subwoofers.

The SUB Z, SUB Z-IWS, SUB1, SUB2, SUB3 effectively allow for more flexibility in positioning your subwoofers.

With this range, we have the advantage of a smaller design, which hereby can be positioned in more suitable places in the room.

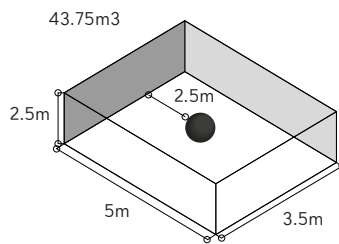
This enables us to design systems which address the problematic room modes at the design stage instead of trying to fight them with aggressive EQ once installed.

The end result is a much more dynamic, smoother, more accurate bass in every room.

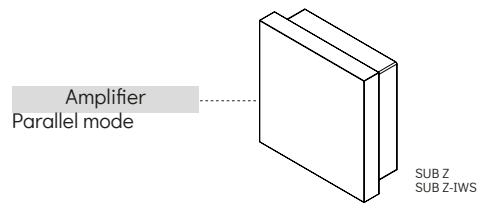
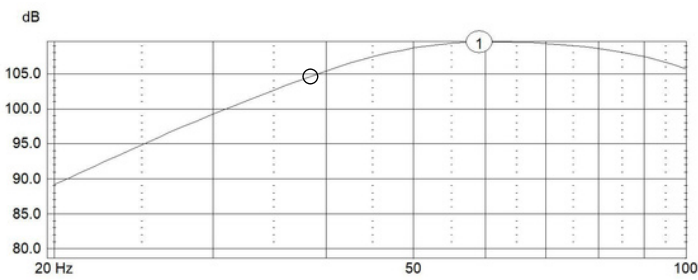
USE THE NEW SUBWOOFERS IN PAIRS, IN ORDER TO SMOOTHEN OUT OFTEN DIFFICULT TO EQ ROOM MODES.

SUBWOOFER ROOM SIMULATION

SUB Z / SUB Z-IWS SMALL ROOM

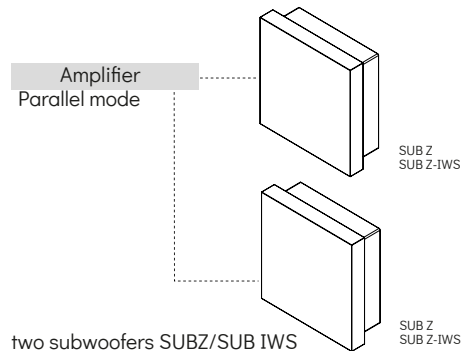
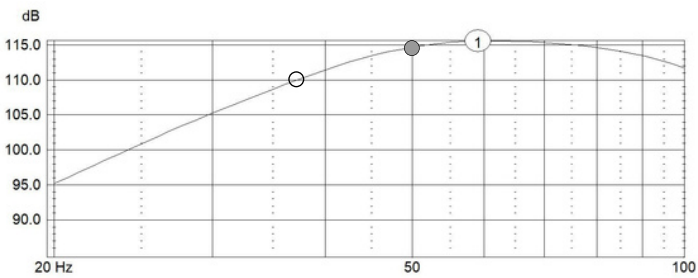


DOLBY ATMOS REFERENCE LEVEL NOT ACHIEVED (-3DB 37HZ)



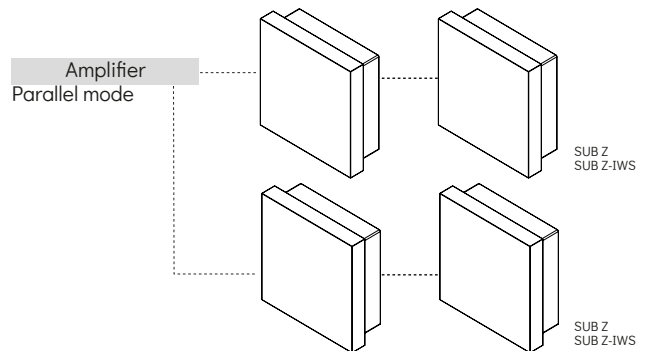
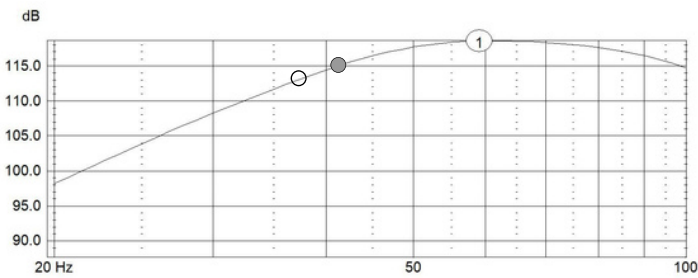
one subwoofer SUBZ/SUB IWS

DOLBY ATMOS REFERENCE LEVEL, ACHIEVED @ 50HZ (-3DB 37HZ)



two subwoofers SUBZ/SUB IWS

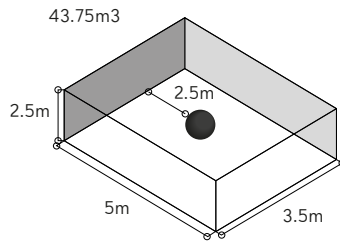
DOLBY ATMOS REFERENCE LEVEL, ACHIEVED @ 42HZ (-3DB 37HZ)



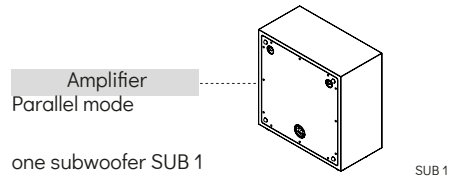
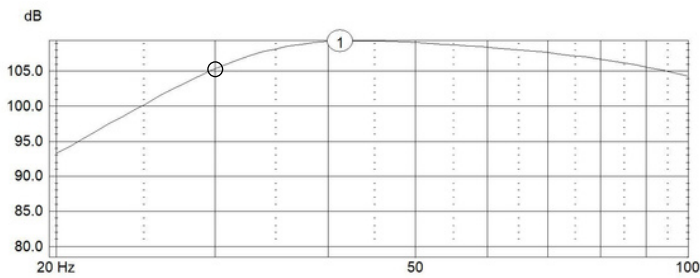
four subwoofers SUBZ/SUB IWS (2-2)

SUBWOOFER ROOM SIMULATION

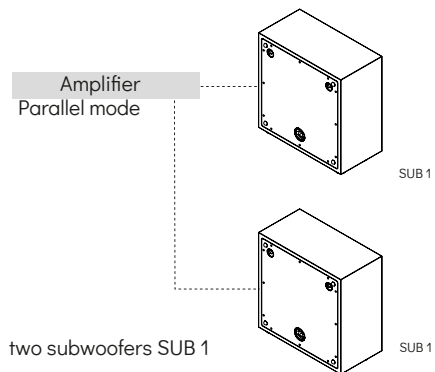
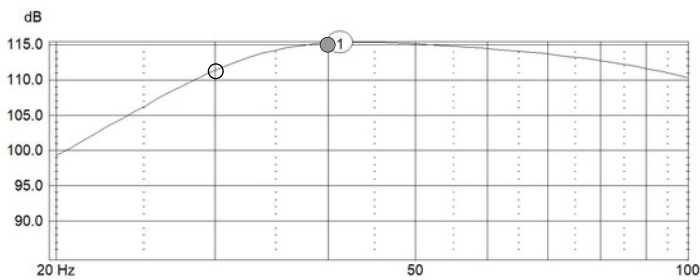
SUB 1 SMALL ROOM



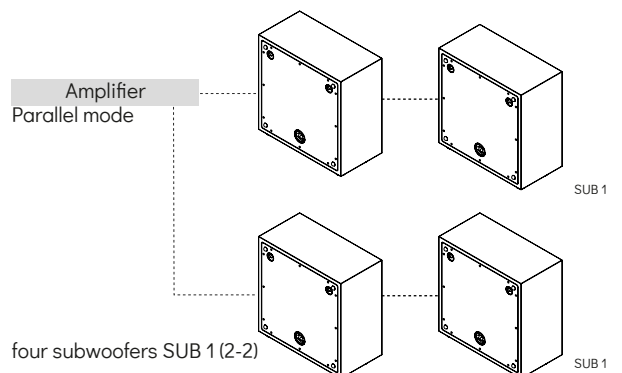
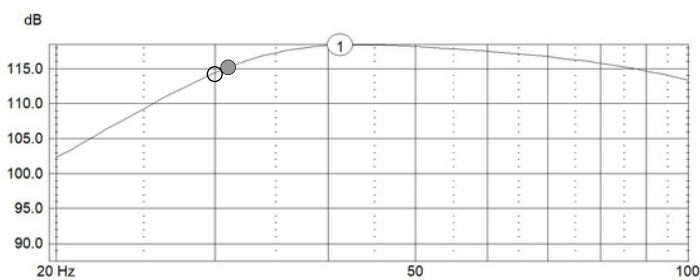
DOLBY ATMOS REFERENCE LEVEL NOT ACHIEVED (-3DB 30HZ)



DOLBY ATMOS REFERENCE LEVEL, ACHIEVED @ 40HZ (-3DB 30HZ)

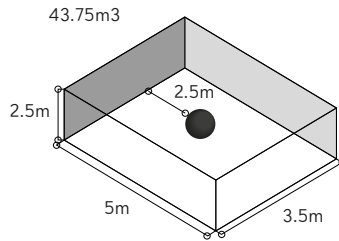


DOLBY ATMOS REFERENCE LEVEL, ACHIEVED @ 32HZ (-3DB 30HZ)

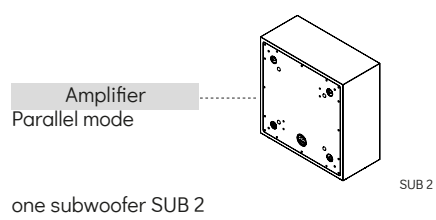
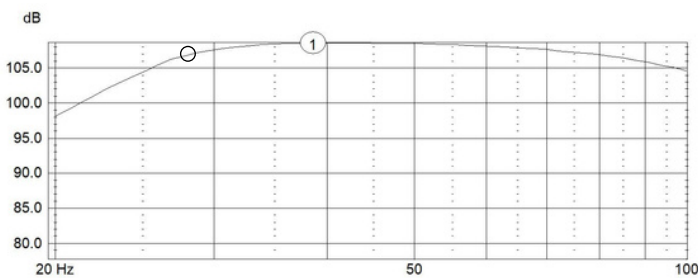


SUBWOOFER ROOM SIMULATION

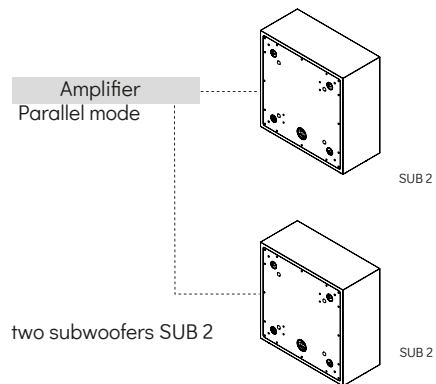
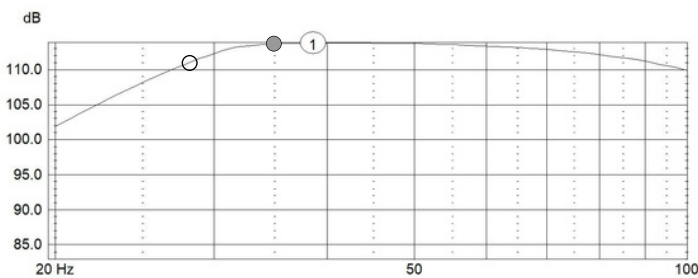
SUB 2 SMALL ROOM



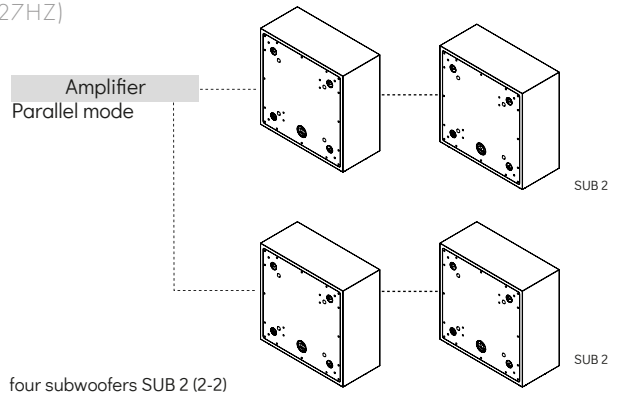
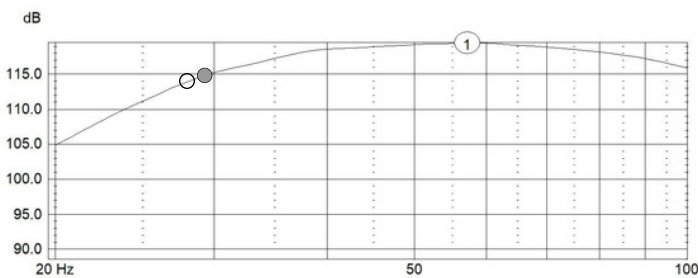
DOLBY ATMOS REFERENCE LEVEL NOT ACHIEVED (-3DB 27HZ)



DOLBY ATMOS REFERENCE LEVEL, ACHIEVED @ 35HZ (-3DB 27HZ)

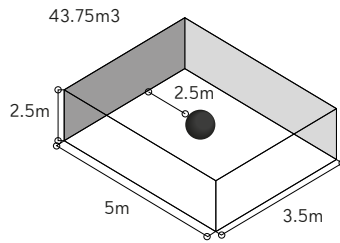


DOLBY ATMOS REFERENCE LEVEL, IN ROOM ACHIEVED @ 29HZ (-3DB 27HZ)

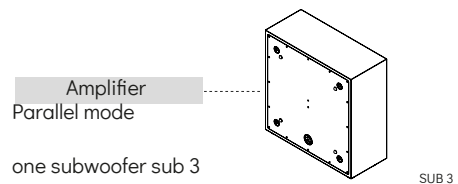
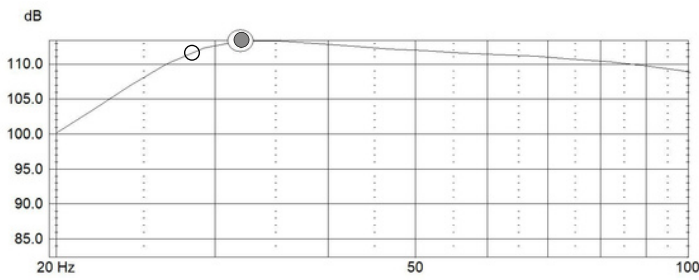


SUBWOOFER ROOM SIMULATION

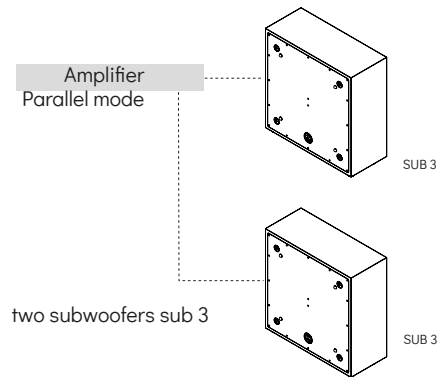
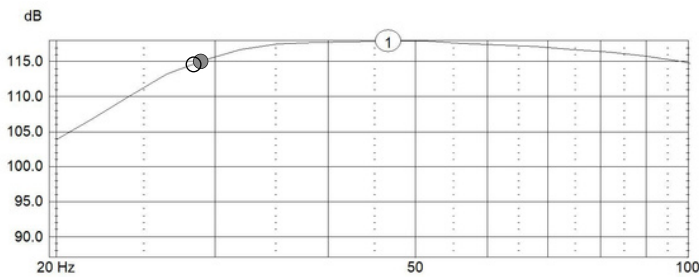
SUB 3 SMALL ROOM



DOLBY ATMOS REFERENCE LEVEL, ACHIEVED @ 33HZ (3DB 27HZ)

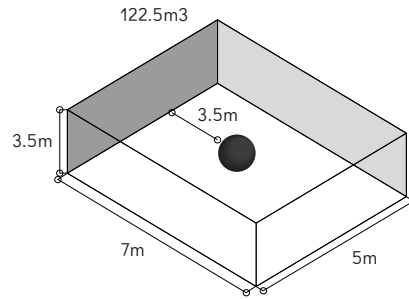


DOLBY ATMOS REFERENCE LEVEL, ACHIEVED @ 28HZ (-3DB 27HZ)

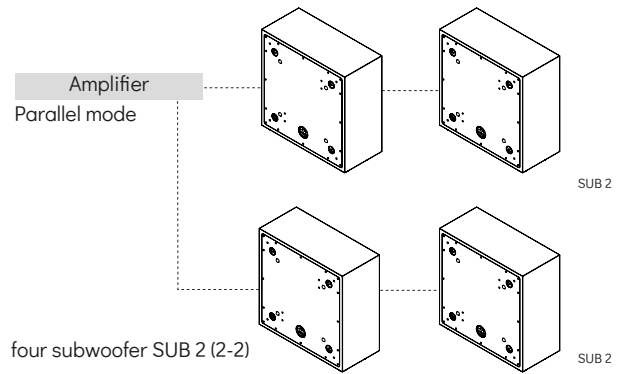
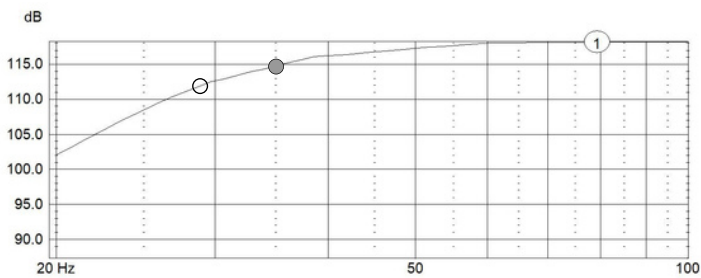


SUBWOOFER ROOM SIMULATION

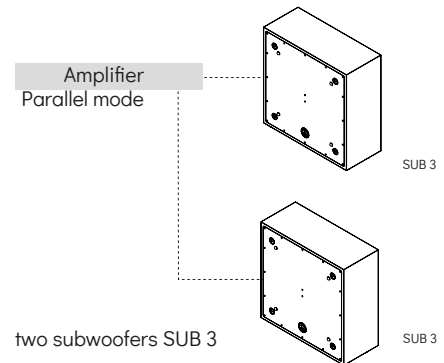
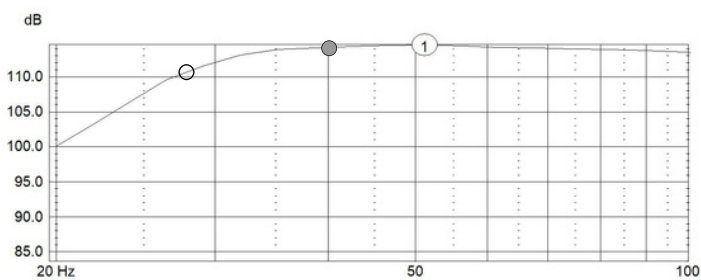
SUB 2 AND 3 MEDIUM ROOM



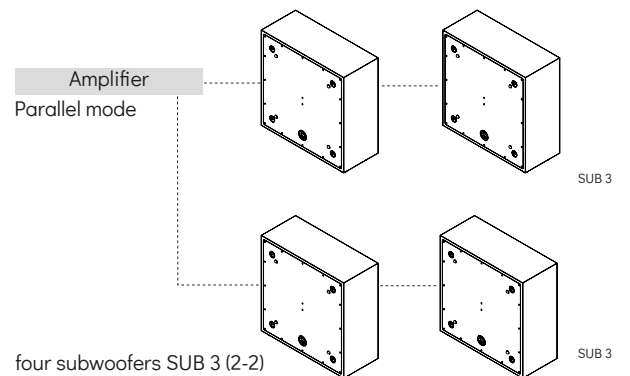
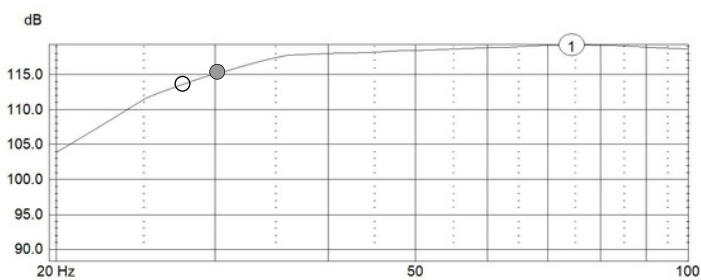
DOLBY ATMOS REFERENCE LEVEL, ACHIEVED @ 35HZ (-3DB 28HZ)



DOLBY ATMOS REFERENCE LEVEL, ACHIEVED @ 35HZ (-3DB 27HZ)

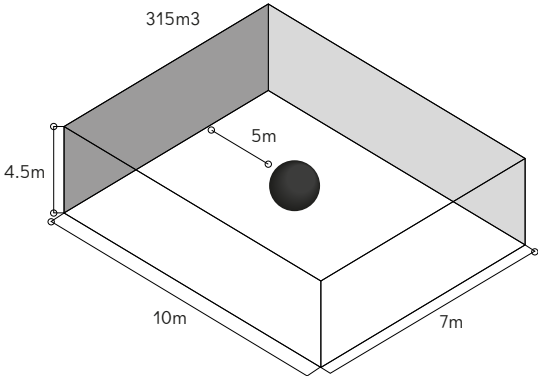


DOLBY ATMOS REFERENCE LEVEL, ACHIEVED @ 30HZ (-3DB 27HZ)

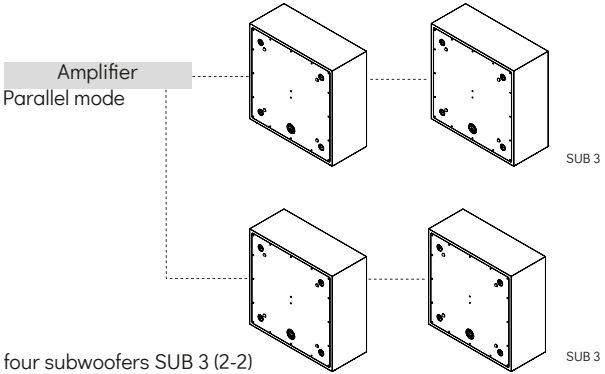
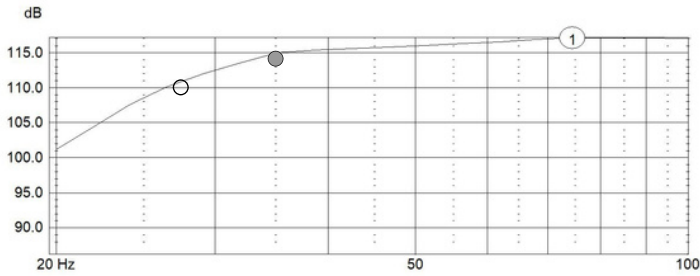


SUBWOOFER ROOM SIMULATION

SUB 3 LARGE ROOM



DOLBY ATMOS REFERENCE LEVEL, ACHIEVED @ 35HZ (-3DB 27DB)



SUBWOOFER PLACEMENT

IMPORTANCE OF ROOM MODES

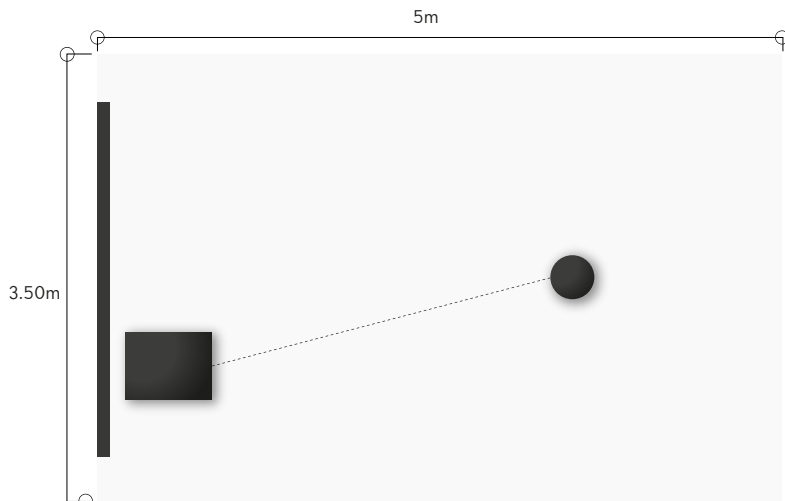


Fig. one sub room placement

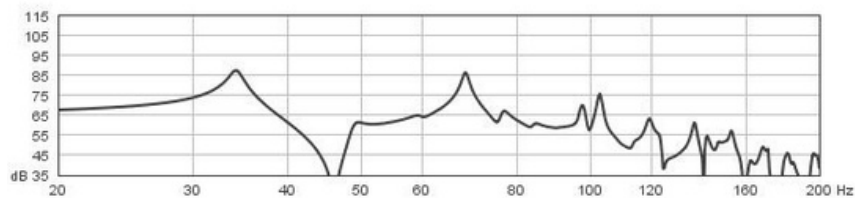


diagram A - frequency response

Diagram A illustrates a typical problem, which can arise using a single or multiple subwoofers, placed in one end of the room.

A rather steep dip can be seen in the region of 35-60Hz.

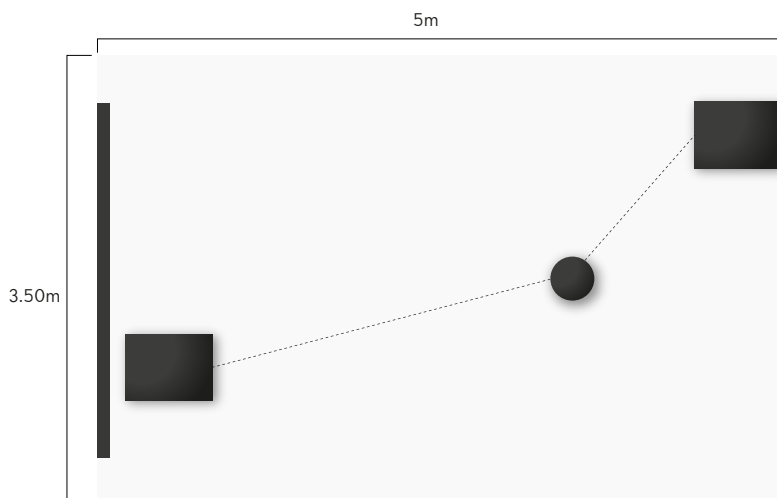


Fig. two sub room placement

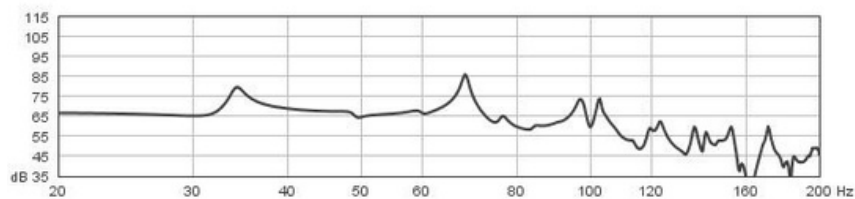


diagram B - frequency response

Diagram B illustrates how a dip can be eliminated by placing a similar size and output subwoofer in the opposite end of the room.

We strongly recommend using multiple subwoofer units whenever budget and space allow for it.

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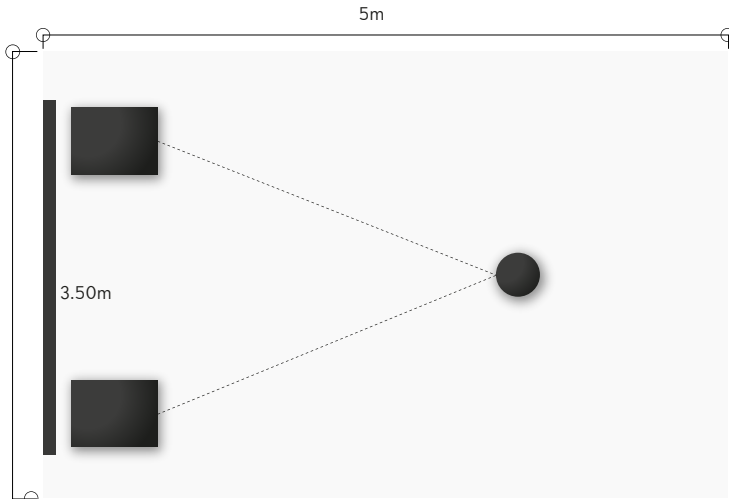


Fig. one sub room placement

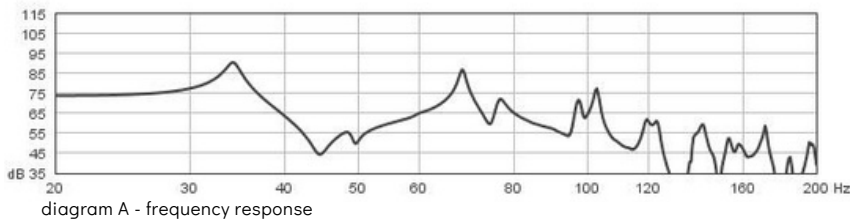


diagram A - frequency response

Diagram A illustrates the same problem, just with multiple units.

Here it can be observed that adding units to same end of room, will only change the overall amplitude, but in no way correct the room modes causing a dip.

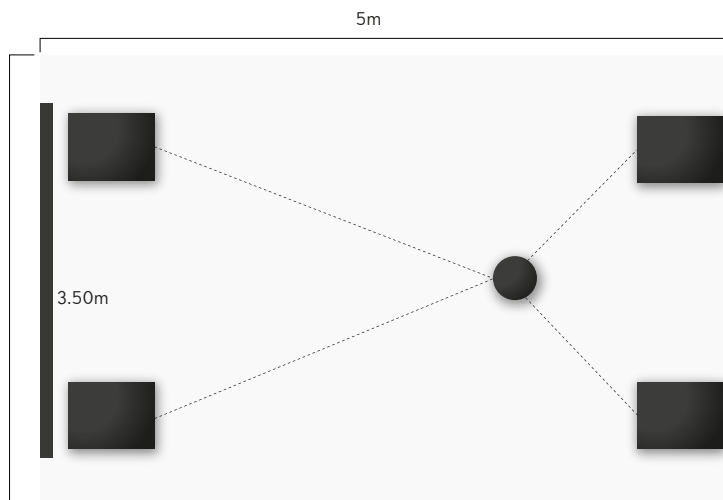


Fig. two sub room placement

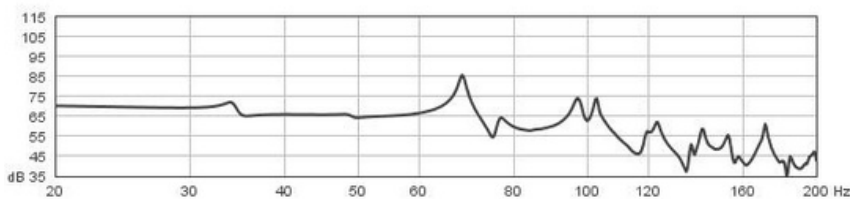


diagram B - frequency response

Again Diagram B illustrates how a dip can be eliminated by placing a similar size and output subwoofers in the opposite end of the room.

And again, we strongly recommend using multiple subwoofer units whenever budget and space allow for it.

It is essential to note that it is not always the best solution to have subwoofers at the front and back.

It is entirely room dependant, and that is why Artcoustic will help design systems to ensure the correct subwoofer locations are recommended.

SAFETY INSTRUCTIONS

SAFETY



Do not use this product near water



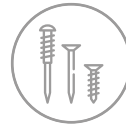
Clean rear panel with dry cloth only



Do not block any ventilation opening



Do not install near any heat sources



If wall mounted, ensure the use of matching screws and rawl plugs

Refer all servicing to qualified service personnel. Servicing is required when the product has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the product, the product has been exposed to rain or moisture, does not operate normally or has been dropped.

To completely disconnect unit power from the AC mains, disconnect the unit's power cord from the mains socket.

NOTE: If the Artcoustic subwoofer is placed on a thick carpet blocking the air outlet, we recommend to use the special Artcoustic carpet spikes. Not included as standard, please order separately.



WARNING

This product complies with Part 15 of the FCC Rules. Its operation is subject to the following two conditions:

This product may not cause harmful interference.

This product must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

To reduce the risk of fire and electric shock do not expose this product to rain or moisture.



Do not place product filled with liquids such as vases on the product.



Do not open product. There are no user-serviceable parts inside.



Always use the power supply shipped with this product. Using a power supply with wrong voltage or polarity, can damage the electronics.



WARRANTY

IS APPLICABLE



Is valid only for products purchased from an authorised Artcoustic retailer or dealer.



Is valid from the date of purchase for a period of 3-years for passive loudspeakers, and 2-years for powered loudspeakers and electronics.



Is limited to the repair of the equipment (which could be a repair or replacement at our discretion, neither of which affects your original warranty).



Neither transportation, nor any other costs, nor any risk for removal, transportation and installation of products is covered by this warranty.

IS NOT APPLICABLE

Will not be applicable in cases other than defects in materials and/or workmanship at the time of purchase and will not be applicable:

- For deterioration of component parts, the nature of which is to become worn or depleted with use, such as batteries.
- For damages caused by incorrect installation, connection or packing.
- For damages caused by accidents, lightning, water, fire heat, war, public disturbances or any other cause beyond the reasonable control of Artcoustic and its appointed distributors.
- For damages caused by any use other than correct use described in the user manual, negligence, modifications, or use of parts that are not made or authorized by Artcoustic.

If it is found necessary to return the product for repair, you will be given a form to fill out and return. You should not return the product without previous acceptance. To validate your warranty, you will need to produce the original sales invoice or other proof of ownership and date of purchase.

The Artcoustic Team

