



**WE CAN'T WAIT TO PLAY
YOUR FAVORITE MUSIC!**

INTRODUCTION



Thank you for purchasing a Sigberg Audio product. We have done our best to provide a high quality product that will be yours to enjoy for many years to come.



Please read this manual carefully to ensure that you get the most out of your investment! It includes information about how to install, set up and care for your loudspeakers. You can find additional product information at www.sigberaudio.no

SIGBERG AUDIO MANTA

Congratulations! You are now the proud owner of truly unique speakers. Their extreme dynamic range and cardioid dispersion pattern will reward you with rich, balanced sound at any listening level.

Combined with one or several Sigberg Audio subwoofers, you have a true full range system capable of authentic reproduction of music in every sense of the word.

*We can't wait to play your
favorite music!*





INSTALLATION & SETUP

AVAILABLE CONNECTIONS

Balanced (XLR) connection

Balanced analogue input and through output.

Digital (AES & S/PDIF coaxial and optical)

AES and coaxial input and through output, optical input. Max sampling rate 192kHz (optical 96kHz)

Unbalanced (RCA) connection

A stereo input signal is internally mixed to mono. For mono use, simply connect only one of the channels (left or right) or use an Y-split.

USB input

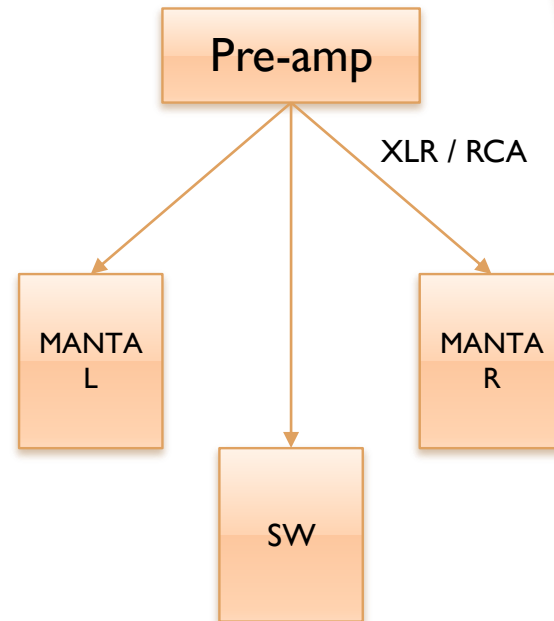
Connect your laptop to access the parametric EQ and additional settings. Otherwise for maintenance / service only.

USB audio not supported



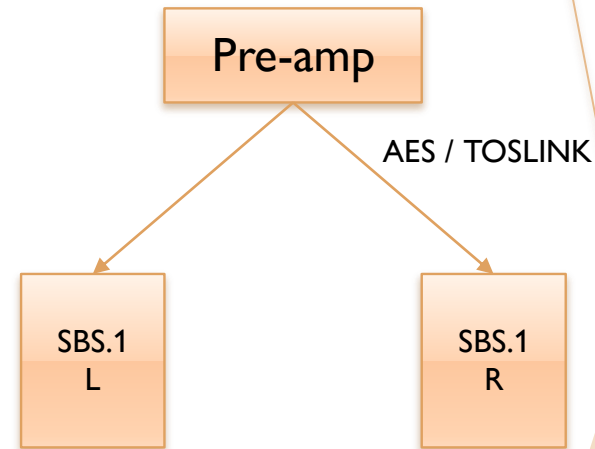
ANALOG CONNECTION

- ▶ The easiest way to think of the MANTA is as speakers with built-in mono power amplifiers. This means they can be connected to a pre-amplifier or processor with either RCA or XLR stereo outputs, the same way you would with a power amplifier.
- ▶ You can also connect the MANTA directly to a source like for instance a network streamer (with volume control).
- ▶ Your pre-amp / source also need an additional pre-out or subwoofer output to enable you to connect your subwoofer(s). Using a y-split is also possible if only one pre-out is available. Using XLR connections and dual subwoofers, you can also connect the subwoofers directly via the speakers using the XLR Through connection.
- ▶ If you need assistance with setting up your system – feel free to contact us, we will be happy to help!



DIGITAL CONNECTION

- ▶ When connecting digitally, both speakers will receive a stereo signal. Your MANTA speakers are preconfigured as a L+R pair that will pick up the individual left or right channel. Inspect the serial number label on the rear of the speaker. The identical serial numbers will end with “L” and “R” respectively.
- ▶ Place the speaker labeled “R” as the right speaker, and the speaker labeled “L” as the left speaker.
- ▶ The configuration can be checked by pressing the select button on the speaker and holding it for 3 seconds. Either “Left”, “Right” or “Left+Right” will light up to indicate the current configuration.
- ▶ If you wish to change the configuration or accidentally did so: Press the button for three seconds and keep pressing. The configuration will change and cycle through “L”, “R” and “L+R” every 1.5 seconds. It can also be done using the HFD software (see later in this manual)





SPEAKER PLACEMENT: INTRODUCTION

- ▶ With its neutral response, cardioid dispersion and low distortion, the MANTA monitors are suitable both for traditional hifi listening at home, as well as studio use.
- ▶ The cardioid dispersion pattern will minimize the effect of room reflections, improve clarity and spatial effects.
- ▶ On the following pages we will share some advice for how to get the most out of your MANTA speaker system.

SPEAKER PLACEMENT: TOE-IN

The **MANTA** is designed to play well with no (zero) toe-in, so placing the speakers parallel to the wall.

This will give the largest soundstage, and due to the point source nature of the coax driver, it will still give you accurate stereo perspective. In short, the best of both worlds.

If a more direct sound and slightly elevated highs is desired, you can experiment with slight toe-in towards the listening position. Toe-in will also widen the sweet spot, so it may be preferable for a lounge setting.

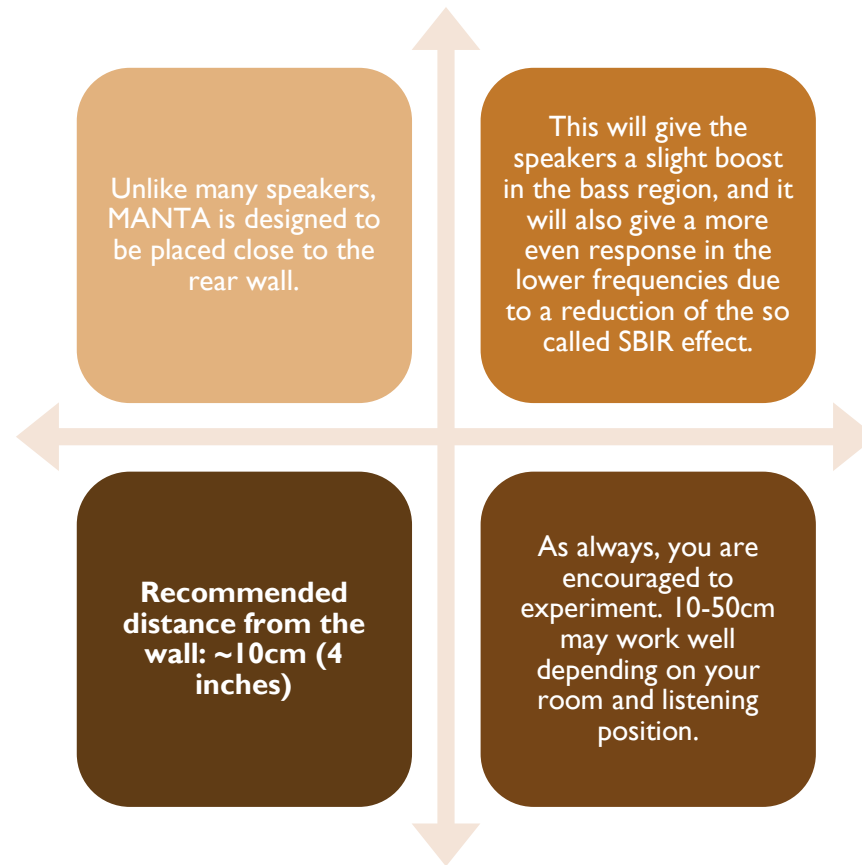
Our recommendation is up to 10 degrees.

No
toe-in

5
degrees

10
degrees

SPEAKER PLACEMENT: DISTANCE FROM WALL





SPEAKER PLACEMENT: DISTANCE, HEIGHT AND POSITION

► **Distance:** A MANTA system with speakers and one or more subwoofers have the capacity to fill large rooms. At the same time, its response is both neutral and smooth, which means it can also work well at shorter listening distances without listening fatigue.

► **Height:** With regards to height, we recommend that the coax (upper) driver is at or slightly above ear height when you are in the listening position. We recommend using the included loudspeaker stands for best performance. If you need to use it in an elevated position, for instance in a studio setting, you can compensate by tilting the speaker slightly downwards.

► **Listening position:** The traditional triangle with equal distance between the speakers as well as from each speaker to the listener is a good starting point with regards to position. Setting the speakers wide apart is usually better than a more narrow configuration. If you have the luxury of alternatives: experiment!

BASIC OPERATIONS

Amplifier overview



BASIC OPERATIONS: BACK PANEL



Powering on and off

We recommend leaving the speakers on, unless they will not be used for an extended period of time.

Always make sure the loudspeaker is powered OFF before connecting/disconnecting cables.

Presets

3 EQ presets are available to adjust

Click the “select” button on the back of the speaker to switch between presets (more about these later).

The green LED lights marked P1 / P2 / P3 will indicate the active setting.

The software needed to access the settings discussed on the following pages can be downloaded from <https://www.sigbergaudio.no/manuals>

After installing the software, locate the Hypex filter designer and launch the software. Connect the speaker to your computer via the included USB cable, and the software will automatically detect your speaker.

(Windows 7 or higher required)

BASIC OPERATIONS: ADJUSTING DEFAULTS



BASIC OPERATIONS: ADJUSTING DEFAULTS

You may override or adjust the settings below using a laptop connected to the USB port. All settings are found by clicking the “Device settings” button in the main interface.

Auto on/off (enabled by default)

If no input is detected for 120 minutes, the speaker will enter power saving mode. It will automatically wake up again when a signal is detected.

Power saving settings and auto on/off sensitivity can be adjusted by changing the “Activate signal detection” parameters under Device settings.

Signal detection level 1 is the most sensitive (default), 4 is the least sensitive.

Gain and Auto on/off vs gain

The startup gain of the MANTA may be adjusted with the “Volume on start” setting. The default value is +6dB.

Different sources have different output levels, which means the default configuration of your MANTA may not work perfectly.

If you experience that the MANTA will not automatically turn on, try decreasing the “Volume on start” setting by 3dB.

If you experience that your MANTA won't turn off, try changing the “Signal detection level” from 1 to 2, or increasing “Volume on start” by 3dB.

Note: If you change the gain (volume on start) on your speakers, you will need to increase/decrease the gain on your subwoofers with the same amount to ensure proper integration. This can be done either through the software or via the gain knob on the back of your subwoofer.

BASIC OPERATIONS: ADJUSTING DEFAULTS

You may override or adjust the settings below using a laptop connected to the USB port. All settings are found by clicking the “Device settings” button in the main interface.

Autodetect signal source

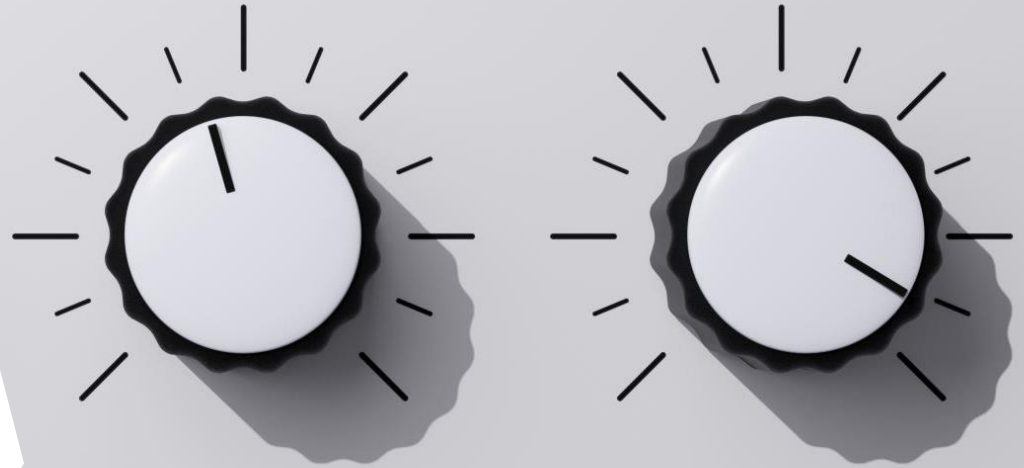
By default the amplifier will autodetect signal from any of the inputs.

If autodetect is enabled and no input is detected for 15 seconds, the subwoofer will mute (green led blinking).

If you experience any problems with this feature, auto-detect can be disabled on the main screen by changing the “Force input” setting to the preferred input.

Note: this setting is defined independently per preset. If you want to force the input to a specific input for all presets, you have to cycle through all three presets via the “Filter preset” setting, and configure “Force input” to your preferred setting on each one.

SUBWOOFER INTEGRATION



SUBWOOFER INTEGRATION: INTRODUCTION

The gain / volume knob on the Sigberg Audio subwoofers can be adjusted from -12 to +12dB. The default (0dB) is with found with the volume pointing straight up (12 o'clock).

The Sigberg Audio MANTA monitors are extremely powerful. To keep up, we strongly recommend at dual subwoofers. This will also give you a smoother bass response.

SCENARIO #1: SIGBERG AUDIO SUBWOOFER INTEGRATION WITHOUT EXTERNAL CROSSOVER

1. Set your Sigberg Audio subwoofer(s) to preset 2 using the small preset button on the amplifier panel.
2. If you connect one or more subwoofers via a preamp and its pre-out or sub-out terminals, you will have to experiment to find the right gain level. Output levels from preamps vary a great deal. Start with the gain at 0dB and go to step 4.
3. If you are connecting dual subs via XLR through from the MANTA, suggested starting gain is +4-6dB.
4. Listen to some of your favorite music. Adjust up or down as necessary until the sound is full but balanced. The subwoofer should sound like a natural extension to your speakers. If you can clearly hear the subwoofer, try turning the level down slightly.

SCENARIO #2: SIGBERG AUDIO SUBWOOFER USING AN EXTERNAL CROSSOVER (AVR PROCESSOR OR SIMILAR)

- ▶ The MANTA is designed to integrate perfectly with any Sigberg Audio subwoofers (**set your Sigberg Audio subwoofer(s) to preset 2**). If you want to use the built-in crossover, you can still do that if you have an AVR/processor. You will need to disable the internal lowpass/highpass feature of your AVR.
- ▶ Set your speakers to Large in the AVR setup, and set the subwoofer to LFE+Main. Please refer to your AVR manual for details on how to do this.
- ▶ If you want to use an external crossover for ease of configuration or to test alternative crossover points, **set your Sigberg Audio subwoofers to preset 1**. A minimum crossover setting of 80hz is recommended.
- ▶ If you have Sigberg Audio subwoofer(s) or other high quality subwoofers placed at the front wall, up to 160hz may work well.

INTEGRATING MANTA WITH A SUBWOOFER OF A DIFFERENT BRAND

Set

Set the crossover of your subwoofer to 100hz, and adjust the subwoofer gain until the sound is full. If you can clearly hear the subwoofer dominating, dial back the subwoofer volume until the sound is balanced.

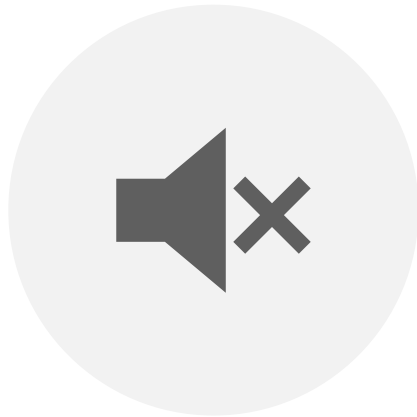
Try

If you have trouble getting a good integration, try adjusting the crossover up or down slightly (anywhere between 80-120hz may be appropriate, depending on your subwoofer and your room).

Note

Note that the Manta is capable of extreme SPL, so you will need to match it with a high quality and high capacity subwoofer, preferably two.

SUBWOOFER INTEGRATION TROUBLESHOOTING

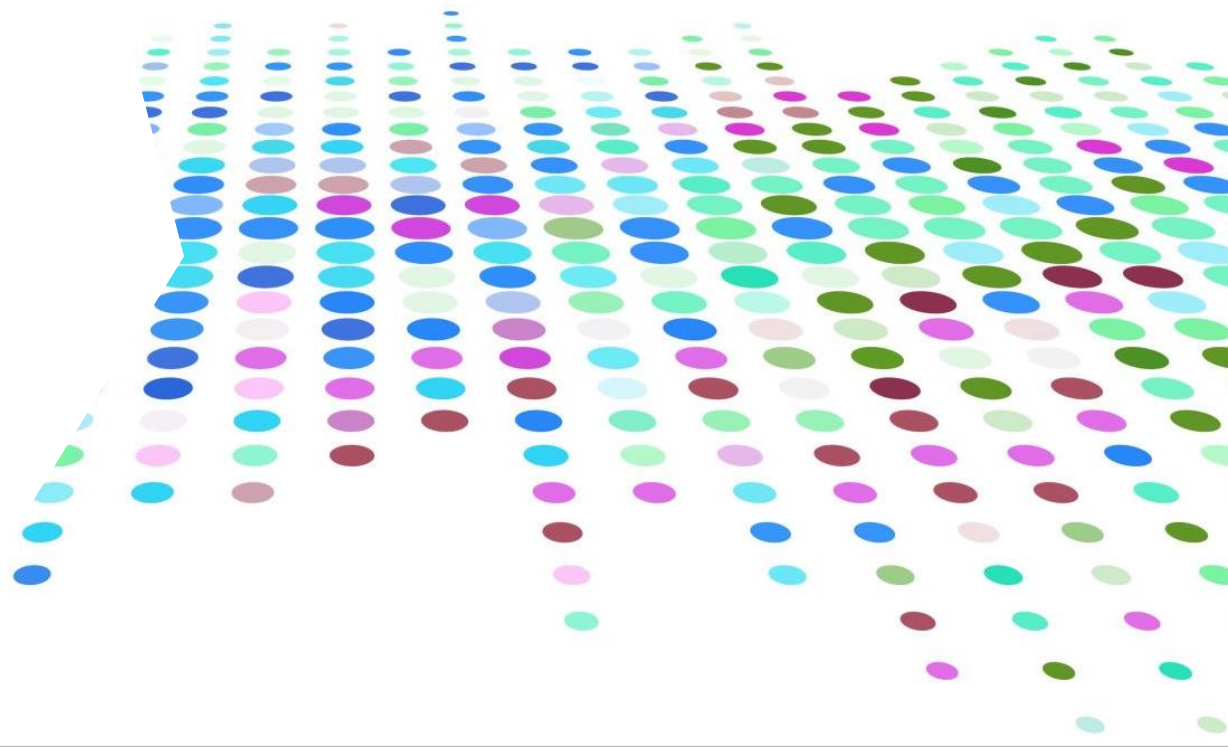


IF YOU ARE UNABLE TO MATCH UP THE GAIN BETWEEN THE SPEAKERS AND THE SUBWOOFERS, IT IS POSSIBLE TO ADJUST THE GAIN LEVEL OF THE SPEAKERS BY CONNECTING WITH THE INCLUDED USB CABLE AND A LAPTOP (WINDOWS ONLY). PLEASE REFER TO THE SECTION ABOUT GAIN ON PAGE 14.



IF YOU ARE STILL HAVING TROUBLE, DO NOT HESITATE TO CONTACT US AT [SUPPORT@SIGBERGAUDIO.NO.](mailto:SUPPORT@SIGBERGAUDIO.NO)

PRESETS



EQ PRESETS

MANTA has three user defined EQ presets. For your convenience we have loaded example EQ configurations into preset 2 and 3.

All presets can be customized further by the customer. See the EQ chapter on page 27 for details on how to do this.

Click the “select” button on the back of the subwoofer to switch between presets.

The green LED lights marked P1 / P2 / P3 will indicate the active setting.

The following pages explain how the three presets have been configured from the factory.

PRESET I

- ▶ **USER PRESET I: Reference**

- ▶ This is the MANTA reference sound, tuned to give the most natural and balanced in-room frequency response.

- ▶ The user definable EQ in preset I is blank from the factory.

PRESET 2 & 3

▶ Preset 2 & 3 has the same base configuration as preset 1. In addition, the user definable EQ has been factory loaded with example configurations as described below (this may be adjusted or changed by the customer).

▶ **USER PRESET 2: Air**

▶ The user definable EQ has been loaded with a high-shelf with center frequency 2khz and gain 2dB.

▶ This will give more treble and “air” in the sound, which may be suitable for long listening distances and/or well damped rooms.

▶ **USER PRESET 3: Warm**

▶ The user definable EQ has been loaded with a high-shelf with center frequency 2khz and gain -3dB.

▶ This will give a more relaxed sound, suitable for highly reflective rooms or nearfield listening.

EQUALIZER



The software needed to access the parametric EQ can be downloaded from <https://www.sigbergaudio.no/manuals>

After installing the software, locate the Hypex filter designer and launch the software. Connect your speakers to a computer via the included USB cable, and the software will automatically detect your speaker.

(Windows 7 or higher required)

Important note

Equalizing is an advanced topic, and learning how to do that is beyond the scope of this user manual. Feel free to reach out to us if you have additional questions about this. Please do not randomly change things in the equalizer if you don't know how to do it. Worst case, you may damage your speaker.



MANUAL EQ: INTRODUCTION

Note: The EQ is configured independently for each preset.

Basic instructions for the Parametric EQ

The EQ should be used primarily to reduce peaks caused by room nodes in order to achieve a smoother in-room response, not add boost. EQ is most effective below ~500hz, but can also be used for broad adjustments higher up, for instance reducing treble in a very reflective room.

With the HFD software active and the speaker connected, click the «EQ» button in the HFD interface. To add a filter, simply click one of the nine circles in the graph or one of the EQ buttons below the graph, and change the desired parameters. Each speaker must be EQed individually.

Center frequency: The frequency you want to boost / cut

Q factor: A low number means a wider frequency range is affected, a higher number means a more narrow frequency range is affected. We recommend using low Q (below 0.5-0.7) for most natural sound.

Gain: Add a positive number to increase (boost) volume in the selected frequency range, and a negative number to reduce (cut) volume. Typical settings: +3/-6

To apply changes: Make sure «EQ Enabled» is selected, and then click the «Upload to DSP» button.

Tip: Trying to use all nine filters to perfectly flatten the response isn't always a good idea. Two or three well placed low Q filters may sound best even though the result isn't perfectly flat.

Warning: We strongly advise against adding boost beyond 3dB.

CARE & MAINTENANCE

► Remove dust with a microfiber cloth. Remove stains by wiping it carefully with a damp microfiber cloth. Do not use any cleaning solvents or soap, as this may damage the surface. Periodically check that all cables are connected properly, and that the speaker is securely installed on a level surface.



TECHNICAL SPECIFICATIONS

Frequency response: 95-20,000hz (+/-2dB) / 80-22,000hz (+/-6dB)
Maximum SPL @1m: 122dB (per speaker)

5.5" Coax with 1" silk dome, 12" Mid-bass

Amplifier: Active 3-channel 650w Hypex nCore Class D with DSP

- 3 EQ/Crossover presets + 9 band parametric EQ
- Inputs: Balanced / Unbalanced / High-level

Power (Auto switching)

- Low Line input voltage: 100-120Vac \pm 10%
- High Line input voltage: 200-240Vac \pm 10%
- Max power consumption: 650W

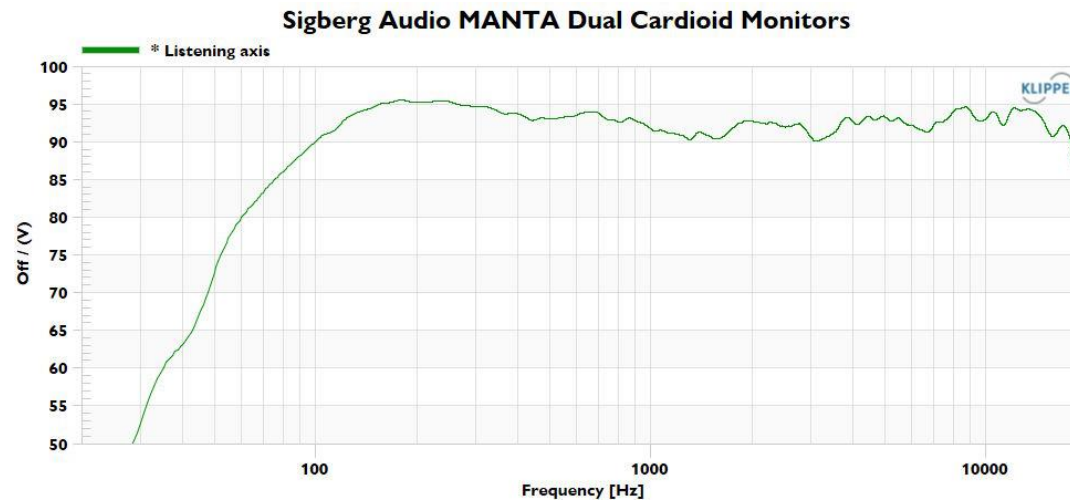
Dimensions

- Width / Height / Depth:360 / 600 / 350 mm

Weight: 25kg per speaker



FREQUENCY RESPONSE (LISTENING AXIS)



- ▶ The MANTA frequency response and dispersion characteristics has been tuned and verified using Klippel™ software and an anechoic chamber.

CONTACT & SUPPORT

Please do not hesitate to contact us for any reason at all. We are happy to help you make the most out of your investment – and of course sort out any problems.

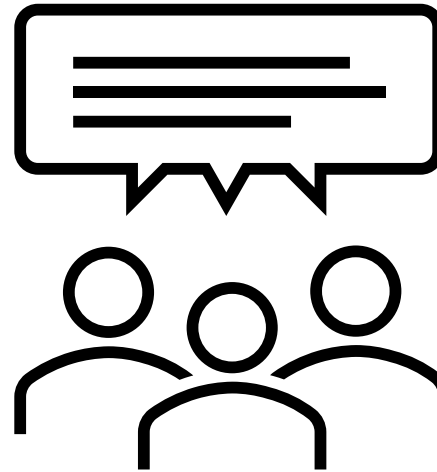
Inquiries may be directed to support@sigbergaudio.no

Please visit www.sigbergaudio.no for more information, keeping up to date with new products and additional contact options.

We wish to thank you once again for purchasing a Sigberg Audio subwoofer, we hope it will bring you joy!

Sincerely,

Thorbjørn Sigberg
Founder





ENJOY
THE
MUSIC!

The logo for SIGBERG AUDIO is centered within a white square with a black border. The text is arranged in two lines: "SIGBERG" on the top line and "AUDIO" on the bottom line. The letters are in a bold, black, sans-serif font. The background of the entire image features abstract, overlapping geometric shapes in various shades of brown and tan, creating a modern, layered effect.

SIGBERG
AUDIO