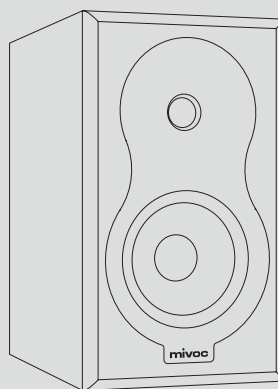


HM5

2-WAY SPEAKER



MANUAL

D

EN

中文

SOUND - EXPERIENCE – HAPPINESS

When you don't just hear your favorite song or movie, but also feel it, it's a very special experience. You are completely under its fascination! – It surrounds you and engages you totally in the action! – You feel the energy around you! – And at that point ... you find yourself just being happy!

BOOM!**WHEN SOUND BECOMES AN EXPERIENCE!**

The mivoc brand brings our passion for good sound to life within your own home. The know-how from decades of experience and our expertise from the development of professional speaker systems add up to 100 % listening enjoyment, which we want to share with you.

We are delighted that you share our passion for sound and that you have chosen this mivoc product. We have summarized everything important for you in this user manual so that you can greatly enjoy your mivoc product. We wish you a lot of fun and many hours full of beautiful sound.

If you have questions or like to learn more about mivoc products, please have a visit at the mivoc website at **www.mivoc.com** for informative resources. Feel free to contact us at **info@mivoc.com**.

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The contents of this document are subject to change without notice to improve reliability, function, and design or for other reasons.

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NOTES AND INFORMATION

APPLICATION

This product is a passive loudspeaker intended for use indoors in a dry and private environment. You need a compatible external power amplifier and appropriate speaker cables to drive the speakers. Use your mivoc speakers only as described in this manual for optimal and safe operation. Any other usage or application than described in this manual may result in personal injury or damage to the equipment.

GRAPHIC SYMBOLS

There are different graphic symbols on the product. These symbols represent important handling instructions and the conformity with relevant directives.



The CE mark indicates conformity with the relevant EU directives on safety, health and environmental protection.



Symbol indicating compliance with Directive 2002/96/EC and Directive 2003/108/EC of the European Parliament on waste electrical and electronic equipment (WEEE).

In this manual, you will encounter various graphic symbols. These symbols indicate important information and helpful notes.



This symbol tells you that there are important operating and maintenance instructions that you have to consider.



This symbol indicates that the relevant section contains interesting and helpful information about your product.



With this symbol, you get practical tips and suggestions for the best way to handle your product.

IMPORTANT SAFETY INSTRUCTIONS

Please observe the following safety instructions. This way, you can use your product safely and enjoy listening to music for a long time.

1. Read this manual carefully and keep it for future reference.

2. **There may be small removable parts on mivoc products. Always supervise children when they are near and around your mivoc products. There is a risk of swallowing small parts of the product resulting in injury or choking.**

3. **Please do not let children play with the product and packaging. There is a danger of injury and choking.**

4. Only use accessories recommended by mivoc.

5. Ensure correct wiring and setup as described in this manual.

6. mivoc products contain magnets of different strengths, which create a magnetic field around the product that can have negative effects on other devices (e.g. computers) or medical implants (e.g. pacemakers). Do not place any computer products on top or in close proximity to your mivoc product and check with your medical professional in advance, if you have medical implants.

7. **Listening to loud sounds can cause hearing damage and psychological impairment. Also, think about your roommates and pets.**

8. Do not touch any technical component or the inside of your mivoc product (membrane, bass reflex port, connection contacts, ventilation openings, etc.). Because this can damage parts and you could injure yourself.

9. Please power off and disconnect your mivoc product (if possible) and other connected devices (amplifiers, players, etc.) from the mains before wiring. This will reduce the risk of electric shock or other damage and injury.

10. Place your product only on a solid surface and make sure that it cannot fall down or fall over.

11. Make sure that no trip traps are created, e.g. by loudspeaker or other power and signal cables.

12. Place your mivoc product at least 50 cm away from heat sources (heater, amplifier, fireplace, candles, etc.). Short distances to heat sources may cause malfunction, damage or fire.

13. Do not place your mivoc product in direct sunlight to avoid malfunction, damage or fire.

14. Do not place any vessels containing liquids on or in the immediate surroundings of your mivoc product. Liquids entering the device can cause damage and carries the risk that you may suffer an electrical shock.

15. Inspect your mivoc product regularly for external damage and correct wiring.

16. Do not use detergents for cleaning. A soft or a slightly moistened cloth is sufficient. Make sure that no liquid enters the interior of your mivoc product or gets into the connections. Switch off your mivoc product (if possible) and other connected devices (amplifiers, players, etc.) and disconnect them from the mains before you start cleaning.

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



Make sure that the signal playback through the speakers sounds interference-free in any situation. There should be no unwanted distortion, unusual noise or undesirable sound coloring. There should be no smell of burning or smoke. Do not use your speakers under any such conditions as damage may occur (risk of injury, damage to health, fire, damage to the speaker or connected equipment, etc.). In such cases, contact your mivoc dealer or the support center immediately.



High volume or sudden loud sound events can cause hearing damage and other adverse health effects. Before each use, make sure that you reset the volume to a minimum level from which you can set your preferred listening volume.

PACKAGE CONTENT

Your mivoc product contains the following:

- 1 mivoc product
- 1 manual
- 1 QC PASS card
- 1 warranty card

CHECKING THE PACKAGING

Please check the packaging of your product before unpacking it. If you discover transportation damage to the packaging, remove the product (as described below) and inspect it for visible damage before using it. Notify the shipping company immediately and contact your mivoc dealer or support center for assistance and support. Document any damage carefully. Keep the shipping package as evidence for any claim, which only you can make.

We generally recommend that you keep all packing material and contents for any further transportation and reference.

UNPACKING AND CHECKING THE CONTENTS

Carefully open the packaging. Be careful not to damage the contents with sharp or pointed objects (scissors, knife) that you use to open the package. Remove the top padding and protective material and lift the product out of the package. Be careful not to touch or press on the external technical components (e.g. membrane, connection terminal, etc.). Check the contents of the packaging for missing parts and damage. If you notice any damage, contact your mivoc dealer or the support center immediately before using the product and clarify the further procedure.



Open the packaging on the ground. This way you can prevent your mivoc product from dropping when you lift it out.



After unpacking (or transporting) your mivoc speakers, allow them to acclimate before using them. You can already set up and connect your speakers according to the instructions, but wait some time before you enjoy the sound of your new system for the first time.

MIVOC HM5

The mivoc HM5 is a compact passive 2-way hi-fi speaker in bass reflex design. It is equipped with a 5-inch woofer and a 1-inch tweeter. The HM5 features a wide frequency range of 42 Hz to 21 kHz and an efficiency of 84 dB. For operation, you need a matching external amplifier (HiFi compact amplifier, AV receiver or multi-channel (stereo) audio amplifier).

HM5 PARTS

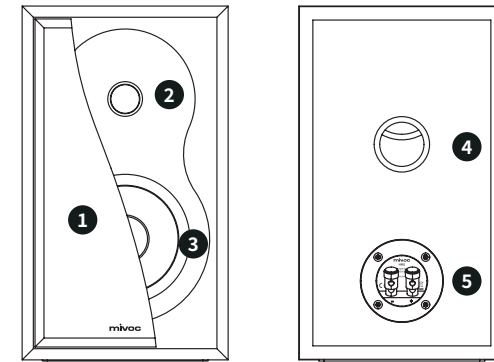


Figure 1. HM5 - Front and rear view.

- 1 Front cover: Magnetically attached, removable cover
- 2 1-inch tweeter
- 3 5-inch woofer
- 4 Bass reflex opening
- 5 Connection terminal

HM5 CONNECTION TERMINAL

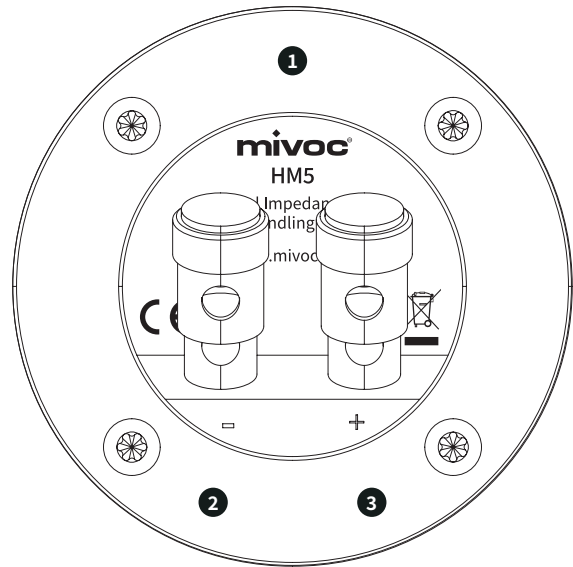


Figure 2. HM5 - Connection terminal.

- 1 Connector terminal with information on power handling and impedance
- 2 Speaker terminal minus pole
- 3 Speaker terminal plus pole



The speaker terminals can accept cables with a cross-section of up to 2.5 mm² or plugs with a diameter of up to 4 mm.

MIVOC HM5 INSTALLATION

FRONT COVER

The front cover of the HM5 is removable. You can remove and reattach it without tools. Magnets, integrated in the housing and frame, hold the front cover in place.

To remove the front cover, proceed as follows:

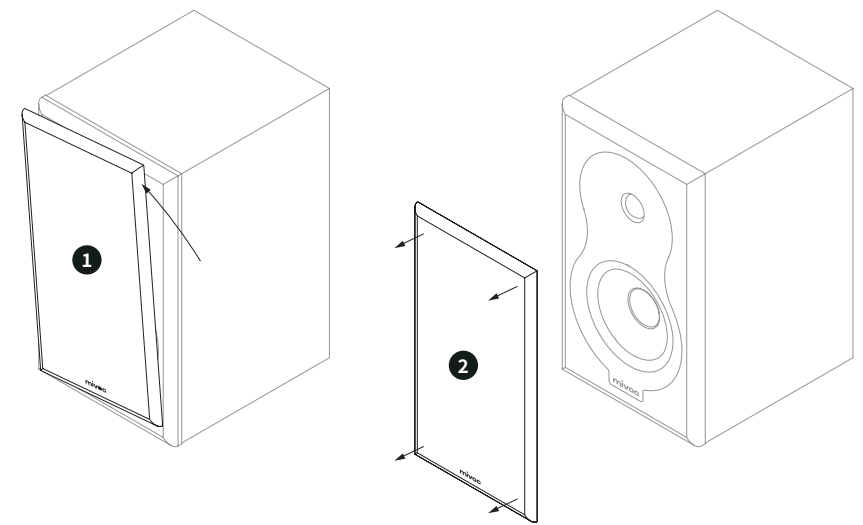


Figure 3. HM5 - Removing the front cover.

- 1 First, place the speaker securely and firmly. Grasp the front cover with your hands and turn the upper part of the cover counterclockwise until three of the corners start to detach.
- 2 After the magnetic mount no longer exerts any influence on the first three connection points, increase the distance between the cover and the speaker by pulling the cover smoothly.

To attach the front cover, you can proceed as described below:

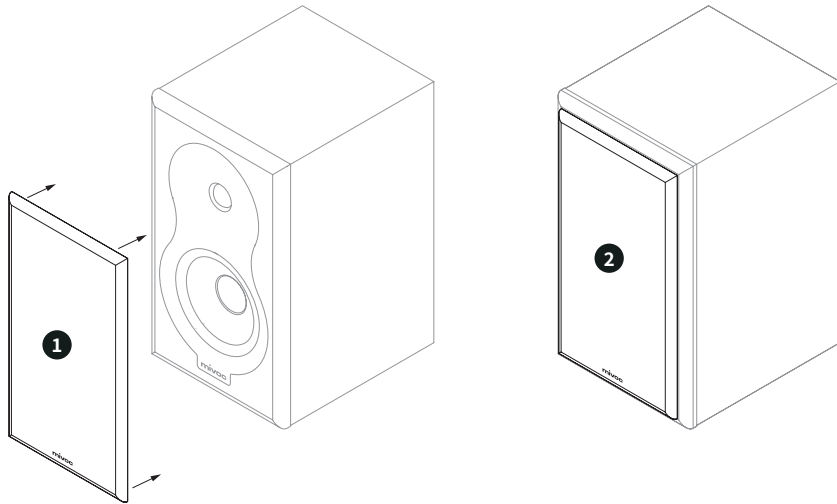


Figure 4. HM5 - Attaching the front cover.

- 1 Make sure that the speaker is secure and firm. Hold the front cover on the left and right side. Move the cover evenly and slowly towards the front panel of the speaker. Align the corners of the cover with the corners of the speaker front.
- 2 When the cover is close enough to the front of the speaker, you will notice how the magnetic force increases and eventually holds the cover in place on the front of the cabinet.

PREPARATION OF THE SPEAKER CABLES

Before you connect your speakers to your amplifier, you need to prepare the speaker cables.

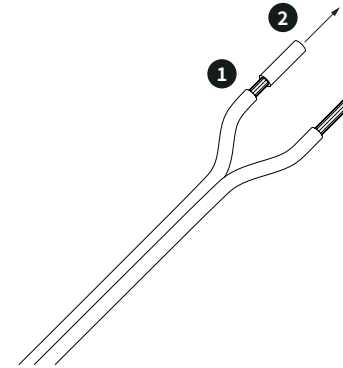


Figure 5a. Strip cable.

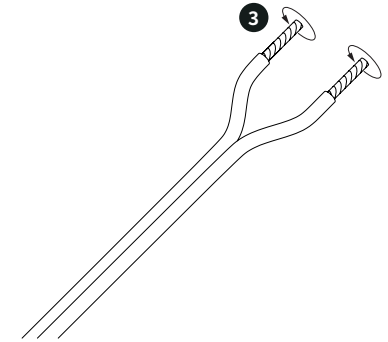


Figure 5b. Twist cable ends.

1 2

Remove a piece of the cable insulation at the ends of the speaker cable according to the depth of the terminals or the depth of the cable receptacle of the speaker plug.

3

Twist the signal wires so that no individual wires stick out and a uniform, stable cable end is formed.



It is best to use a wire stripper. This way you can strip the cable without damaging the signal conductors. Follow the instructions of the stripper to know how to use the tool.



If you are using connector plugs, follow the instructions included with the connector plugs to connect the speaker cable properly.

CONNECTING TO AN AMPLIFIER

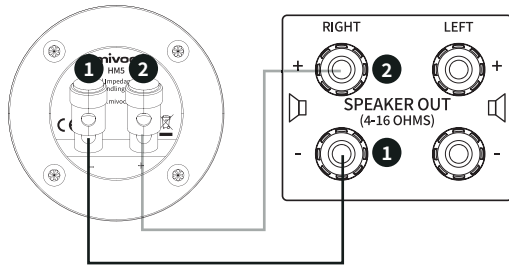


Figure 6. HM5 - Connecting to an amplifier.

Connect your HM5 speakers to your amplifier with a compatible speaker cable. **1** Connect the minus (-) terminal of the HM5 to the minus (-) terminal of an amplifier output (Figure 6 shows the right output as an example). **2** Connect the plus (+) terminal of the HM5 to the plus (+) terminal of the same amplifier output.

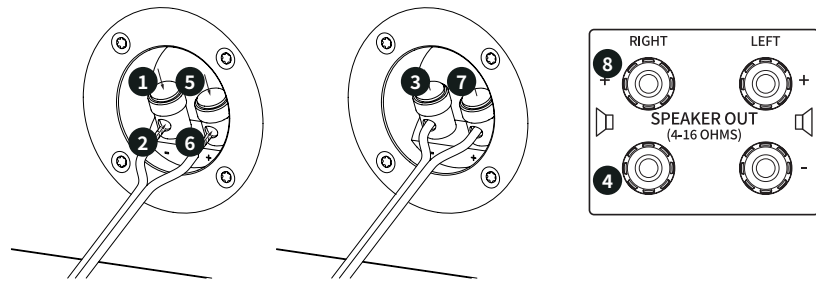


Figure 7. HM5 - Speaker cable connection (without plug).

Detailed description of how to connect the HM5 speaker to an amplifier:

- 1** Press the speaker terminal labeled minus (-) on the connector terminal of the HM5 speaker down until the two holes are aligned.
- 2** Insert a prepared end of one wire of the speaker cable into the previously formed continuous cable socket.
- 3** Now you can release the speaker terminal. This locks the wire of the speaker cable in place by the clamping mechanism.

- 4** Connect the other prepared end of the speaker cable to the minus (-) terminal of an amplifier output. Refer to the amplifier's instructions on how to connect the speaker cable.
- 5** Press down the speaker terminal labeled plus (+) on the connector terminal of the HM5 speaker until the two holes are aligned.
- 6** Insert the prepared end of the second wire of the speaker cable into the previously formed continuous socket.
- 7** Release the speaker terminal. This locks the wire of the speaker cable in place by the clamping mechanism.
- 8** Now, connect the other prepared end of the speaker cable wire to the positive (+) terminal of the same amplifier output. Refer to the amplifier's instructions on how to connect the speaker cable.

Connect your second HM5 speaker to another channel of your amplifier in the same way.

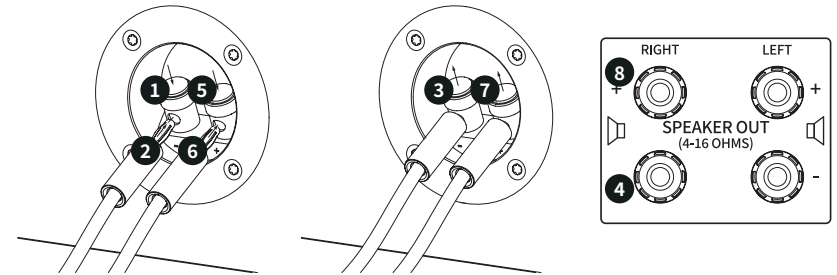


Figure 8. HM5 - Speaker cable connection (with plug).

If you are using speaker plugs (see Figure 8), follow the previously described steps **1** to **8** to connect your speakers to your amplifier.

THE MATCHING AMPLIFIER

Ensure that you power your HM5 speakers with a compatible amplifier. The amplifier you are using must be capable of driving speakers with an impedance of 4 ohms. Your amplifier should also be able to provide a continuous power of at least 50 W.

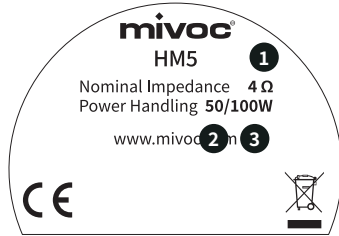


Figure 9. HM5 - Technical data shown in the connection terminal.

- 1 Nominal impedance of the HM5 loudspeaker.
- 2 Continuous power handling.
- 3 Program power handling.



Too weak amplifier: If you want to achieve a higher volume but your amplifier cannot provide enough power, clipping can occur. This can especially damage the tweeters of your speakers.



Too powerful amplifier: If your amplifier provides more power than your speakers are capable of handling, distortion and extreme excursion of the speakers can occur. This can particularly damage the mid/bass drivers.



Impedance: If your amplifier is not rated to the impedance of your speaker (impedance of the speaker is less than the minimum impedance the amplifier can handle), too much current flow can cause damage to the speaker and amplifier.



If your HiFi system sounds distorted or stressed, either your amplifier or your HM5 is overloaded. Immediately reduce the volume to avoid damage to your amplifier and/or HM5 speakers. In addition, loud listening can damage your hearing or cause other health issues.

MIVOC HM5 SETUP

The following section will provide you with instructions on how to set up your HM5 speakers for the best listening experience.

DISTANCE TO LISTENING POSITION

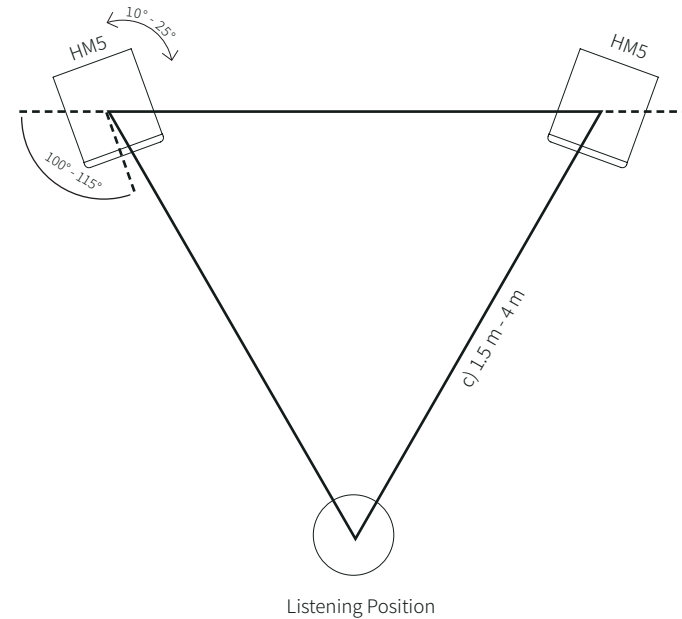


Figure 10. HM5 - Stereo setup triangle.

Depending on the size of your room and the placement, you should position the speakers at a distance of between 1.5 m and 4 m from each other. Your two speakers, together with the listening position where you are ideally located, form an equilateral triangle (stereo triangle). Rotate the speakers between 10° and 25° inward from the baseline so that the tweeters and mid/bass drivers point in the direction of the listening position.

INSTALLATION HEIGHT

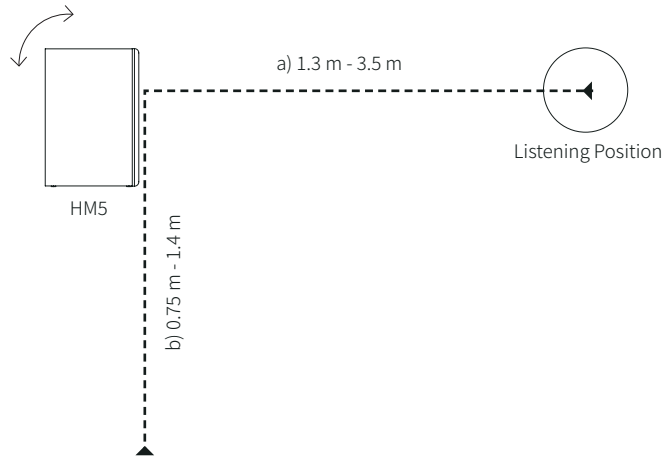


Figure 11. HM5 - Installation height.

For the best possible listening experience with balanced and accurate localization, the tweeters of the speakers should be at about ear level of the listener. If you cannot place the speakers at the ideal height, you can slightly tilt the speakers. In this case, the inclination angle should not be greater than 10°.



Use only solid, skid-proof and stable surfaces (shelf, speaker stand, TV board, etc.) for the placement of the speakers. If you want to place your speakers tilted, make sure that you only use speaker supports or speaker stands that allow safe tilting. Dropping speakers can cause serious injury and damage.



The room in which you use your speakers has a big impact on the sound experience. You can vary the spacing, placement height, and orientation angles within the specified ranges to find the best placement.

DISTANCE TO BOUNDARY SURFACES

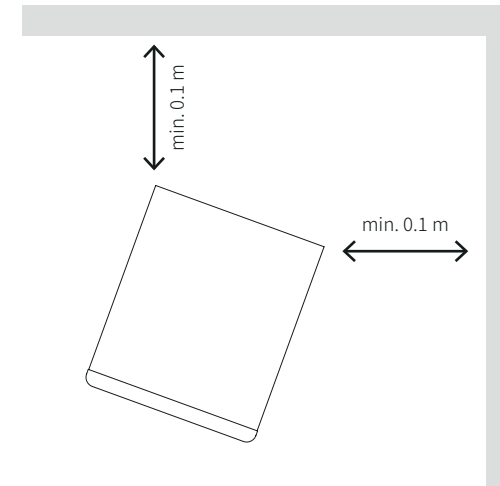


Figure 12. HM5 - Distance to boundary surfaces.

When placing your HM5 speakers, make sure that the distance between the back of the speaker and nearby walls is at least 10 cm. This will ensure that your HM5 work as it should.



For the best performance, place the speakers at a distance of 0.5 m or more from walls or large objects with a large surface area, such as cupboards. This will minimize overemphasis in the bass range and improve the sound quality in your room.

TECHNICAL DATA

HM5 SPECIFICATIONS

ELECTRO-ACOUSTICAL	
Frequency range (-3 dB) ¹	50 Hz - 19 kHz
Frequency range (-10 dB) ¹	42 Hz - 21 kHz
Nominal impedance:	4 Ohm
Sensitivity ¹	84 dB
Continuous power ²	50 W
Program power	100 W
System type	2-way system
Acoustic crossover frequency	1.8 kHz
Crossover type	Passive
Transducers	LF: 1 x 5" driver (1" voice coil) HF: 1" dome tweeter
Enclosure type	Vented box
Connectors	Speaker wire terminal cup
Wiring	Pins +/- : drivers
MECHANICAL	
Product dimensions [H x W x D] (including grille)	316 x 184 x 225 mm
Weight (including grille)	5.3 kg
Cabinet	12 mm MDF
Cabinet finishing	Black PVC foil
Grille	Polyester fabric, wooden frame, magnetic attachment

¹ measured in room (depending on position and room characteristics)
² According to EIA-426B Standard

HM5 DIMENSIONS

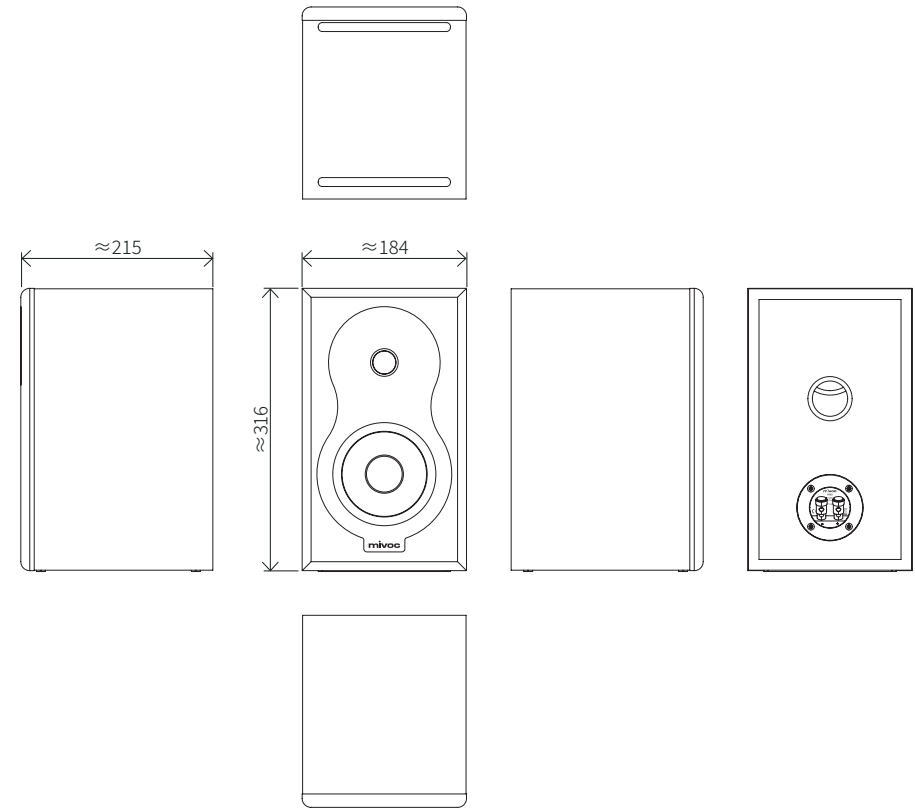


Figure 13. HM5 - Technical drawings.

MANUFACTURER'S DECLARATIONS

WARRANTY

mivoc grants a warranty of 2 years on mivoc products. The warranty period begins from the date of purchase. The warranty applies to material or production defects that occur. Defective components or products will be repaired or replaced free of charge by mivoc at its sole discretion during the warranty period.

TRANSFER OF THE WARRANTY

The warranty granted is not transferable and refers to the original purchaser.

NOTE

mivoc does not guarantee the uninterrupted and error-free operation of the products.

The warranty does not apply:

- For wear parts and natural wear.
- For damage, defects or malfunctions caused by improper or non-intended use.
- For damage, defects and malfunctions caused by the use of force or environmental conditions.
- For unauthorized repair attempts.

REQUESTING WARRANTY SERVICES

Submit your request for warranty service to mivoc or to the dealer from whom you purchased the mivoc products.

Contact details **mivoc**

Neuenhofer Straße 42-44
42657 Solingen
Germany
Phone +49 212 382 26-0
E-Mail info@mivoc.com

In order to be able to claim warranty services, a document proving the purchase is required. In addition, you have to provide mivoc with the opportunity to verify the warranty claim (e.g. sending in the products, inspection at an authorized partner). If you do not meet set requirements, mivoc may refuse the provision of warranty service. In the case of an extended warranty period, a proof of product registration is necessary.

IMPORTANT NOTE

This warranty does not affect statutory warranty rights. Furthermore, this warranty does not affect any agreements that you have arranged with a dealer.

LIMITATION OF LIABILITIES

mivoc shall not be liable for personal injury, property damage or claims arising from unsuitable, dangerous or improper use of the products.

EU DECLARATION OF CONFORMITY

mivoc equipment complies with the fundamental requirements and other relevant specifications of the European Union directives. Visit www.mivoc.com for further information and the list of directives and harmonized standards. Included are all product variants, provided they correspond to the original technical design and have not been modified mechanically or electrically or in their original condition.

DISPOSAL OF PRODUCTS (ELECTRICAL WASTE)

(Applicable in the European Union and all countries with separate waste collection systems).



mivoc products must not be disposed with other waste at the end of their service life in order to avoid possible harm to the environment or human health.

Private users can contact either the dealer from whom they purchased the products or the local authority for information on environmentally friendly disposal. Commercial users can contact their supplier or an official local authority if they have any questions about the disposal.

EXPLANATION OF WEEE

mivoc products are designed and manufactured with high quality materials and components that are intended to be recyclable and/or reusable.

mivoc as a brand of Speaker Trade is registered in accordance with the WEEE directive.

LICENSES AND COPYRIGHT

mivoc products may directly or indirectly contain software that is necessary or supplementary for their use. These software components may be mivoc's own developments or licensed and open source products as well as solutions or a combination of the aforementioned. In the case of open source licenses, mivoc shall provide a copy of the source code and the full text of the corresponding license in accordance with the license terms upon request. Excluded from this and protected by copyright are own and licensed software solutions and software components.



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Designed in Germany

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