



musikelectronic geithain

# ME 160



**Instructions for installation and use**

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## **1 Introduction**

Dear customer,

Thank you for the trust you have put in us by buying these speakers. You decided upon a quality product that in regard to tonal and technical characteristics complies to the utmost expectations.

The usual burn-in period is not required, because the speakers are artificially aged in-house.

**Please read the technical description and manual to take advantage of the capabilities of these speakers and ensure safe operation.**

## **2 Disclaimer**

Technical data and appearances are subject to changes without notice. Errors and omissions excepted. Musikelectronic Geithain GmbH assumes no liability for any loss which may be suffered by any person who relies either wholly or in part upon any description, photograph or statement contained herein. Musikelectronic Geithain GmbH products are sold through authorized fulfillers and resellers only. Fulfillers and resellers are not agents of Musikelectronic Geithain GmbH and have absolutely no authority to bind Musikelectronic Geithain GmbH by any express or implied undertaking or representation. This manual is copyrighted. No part of this manual may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or by any information storage or retrieval system without the prior written permission of Musikelectronic Geithain GmbH.

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### 3 System description

The ME 160 3-way coaxial loudspeaker has been optimized for the sound reproduction in acoustically less attenuated living rooms. Interfering reflections on floor and ceiling surfaces often result in a diffuse and less precise sound pattern. The ME160 passive floorstanding loudspeaker avoids this problem thanks to its vertical directivity in the mid and treble ranges. This radiation characteristic is achieved with a special geometric arrangement of the loudspeaker systems.

Bass and mid frequencies are reproduced by two 8-inch cone loudspeakers that are fed from separate filter branches. Both systems are placed in a vented cabinet with a downward-radiating exit opening. This design simplifies the positioning of the loudspeakers for achieving optimal bass reproduction in your listening room.

For the treble range, the floorstanding loudspeaker is equipped with three vertically arranged 1-inch dome tweeters which are located in front of the upper midwoofer system. This technology both expands the dynamic range and increases the usable listening distance to five metres. In combination with the coaxial arrangement, the result is a homogenous and natural sound pattern.

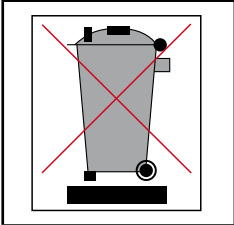
The general concept of the passive 3-way coaxial loudspeaker ME160 is characterized by high efficiency, sound neutrality and dynamic qualities.

"All in all it is an elegant floorstanding loudspeaker displaying true understatement, reluctant to push itself to the fore. However, all understatement is gone immediately if you feed the ME 160 with any music material independent of the genre. Then it really comes out, the proverbial wolf in sheep's clothing..." Meik Wippermann, "Hörerlebnis" magazine, issue 72

## 4 Basic information

### 4.1 Guidelines

This product complies to requirements of current European and national guidelines (2004/108/EG Electromagnetical Compatibility). The conformity is ascertained, corresponding declarations and records are deposited with the manufacturer.



Products built by us belong to B2C-class of the WEEE guidelines and must not be disposed with domestic waste.

### 4.2 Safety instructions

Like using any other electrical device you should observe the following operation guidelines, safety instructions and warning signs to ensure optimum functionality and safety of operation!

- ◀ Read these instructions carefully.
- ◀ Keep these instructions during the life cycle at a safe place. The instructions are an important part of the product.
- ◀ Heed all warnings. Follow all instructions.
- ◀ The product may only be used in accordance with the information provided in the user manual. Before and during the usage of the amplifier please ensure that all recommendations, especially the safety recommendations in the user manual, are adhered to.
- ◀ Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury, and damage to the product.
- ◀ Do not expose the device to direct sun radiation.
- ◀ Do not install the device in rooms with high humidity.
- ◀ Do not try to insert anything into device openings.
- ◀ The device shall not be exposed to dripping or splashing and no objects filled with liquids shall be placed on the device.
- ◀ Clean only with dry or slightly moistened cloth.
- ◀ Refer all servicing to qualified service personnel.

### 4.3 Unboxing

The speakers are shipped in proper condition. Unpack the speaker carefully and check for visible damages. In case of damages report them to your retailer. Keep the packaging, in case the speaker has to be transported in the future.

### 4.4 Delivery contents

- ◀ Speaker ME160
- ◀ Bi-wiring cable jumpers
- ◀ Technical description and user manual

### 4.5 Cleaning

The speaker is made of real wood veneer and needs to be nurtured in the same way as furnishings. We advise quality wax polish to ensure durability of the veneer. Surfaces can also be cleaned with tidy, slightly dampened, fuzz-free, smooth cloth.

### 4.6 Environmental conditions

Ensure the following environmental conditions in your listening room:

- ◀ Operating temperature                    +15 °C ... +35 °C (+59 °F ... +95 °F)
- ◀ Storage temperature range            -25 °C ... +45 °C (-13 °F ... +113 °F)
- ◀ Relative humidity                        45 % ... 75 %

### 4.7 Guarantee acknowledgements

Opening the device by unauthorized personnel leads to all claims under guarantee expire. In case of destruction by overload, misuse or outside influences there are no claims under guarantee.

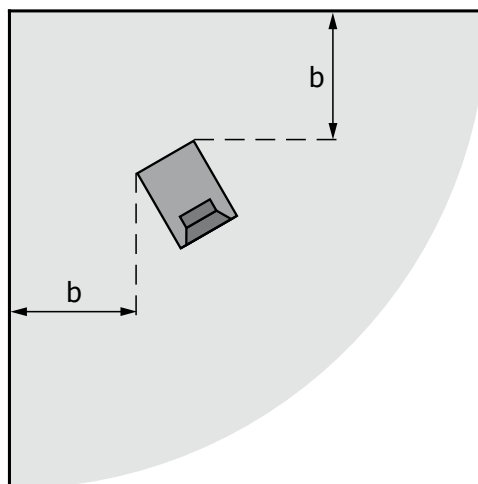
## 5 Positioning

Our speakers do not impose special requirements neither in stereo nor in multichannel set-ups. Nonetheless speaker positioning has influence on listening impression because every room is individually designed and furnished. The following advices are just guidelines that ease proper positioning. In addition we offer a measurement service to take advantage of the capabilities of your listening environment.

### 5.1 Positioning near walls

When speakers are installed near walls sound quality is physically affected. Every customary speaker behaves as a punctual sonic source in the low frequency range, with sonic waves spherical radiated without any constructional measures. Back wall reflections are unavoidable.

For optimum listening experience a minimum distance of 50 cm (19.7") to walls and furniture should be ensured. Avoid corner installations because unwanted bass accentuation could arise.



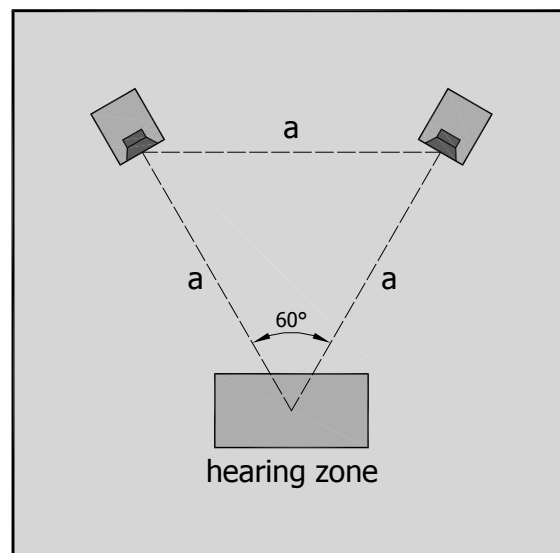
◀ Minimum distance to wall

$b \geq 50 \text{ cm (19.7")}$



## 5.2 Stereo operation

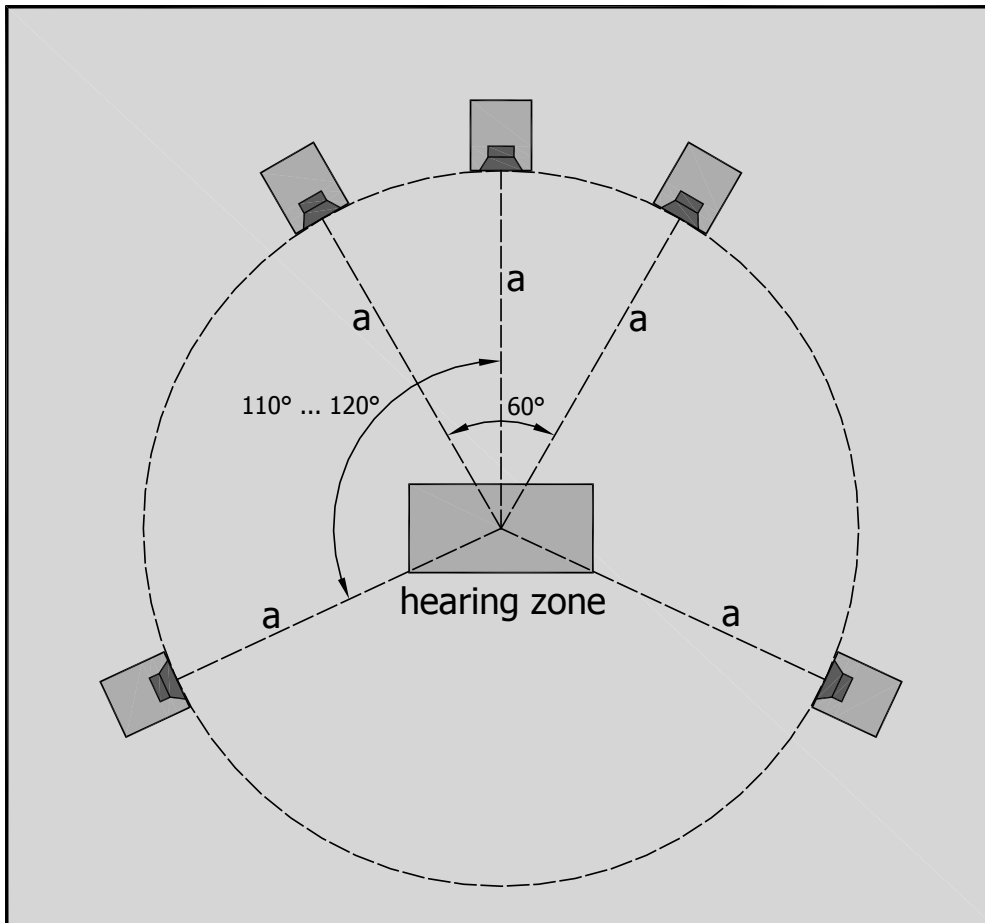
The optimum position of the speakers in your listening environment is the so-called stereo triangle (see figure). The base distance between the speakers and the distance to the hearing zone form an equilateral triangle (stereo triangle). A distance less than 2 m (6'7") or more than 5 m (16'5") should be avoided. For precise, spacial reproduction turn the speakers inside, directed to the hearing zone.



- ◀ Distance between speakers and your listening position  $a = 2\text{ m} \dots 5\text{ m}$  (6'7" ... 16'5")
- ◀ Adjust the speaker horizontally to the height of the ear at the listening position

### 5.3 Surround operation

In surround operation the stereo triangle (see Stereo operation) is extended to a circle. The hearing zone is the centre of this circle. Position all speakers in the same distance to the hearing zone. The centre speaker is positioned in the middle between both front speakers. Pay attention to positioning the front and rear speakers horizontally along one plane. The angle between centre and rear speakers should be about  $110^{\circ}$ – $120^{\circ}$ .



- ◀ Distance between speakers and your listening position  $a = 2\text{ m} \dots 5\text{ m} (6'7'' \dots 16'5'')$

In case installation in the prescribed way is not possible in your listening room most decoding devices allow adjustments of single speakers.

## **6 Connecting the speakers**

Our passive speakers are no difficult load to common amplifiers. An amplifier power of 100 W ... 400 W at 4  $\Omega$  is suggested. Due to the linearized impedance the operation with tube amplifiers is possible without difficulties. Your authorized ME Geithain dealer will gladly provide you with professional advice.

### **6.1 Single-wiring connection**

When connecting the speakers to an integrated amplifier or a power stage check the connection for the right polarity. The gold-plated screwed joints of the terminal are labelled with + and a -. Both mustn't be interchanged. Do not remove the bridges between the high and low frequency terminals.

### **6.2 Bi-wiring connection**

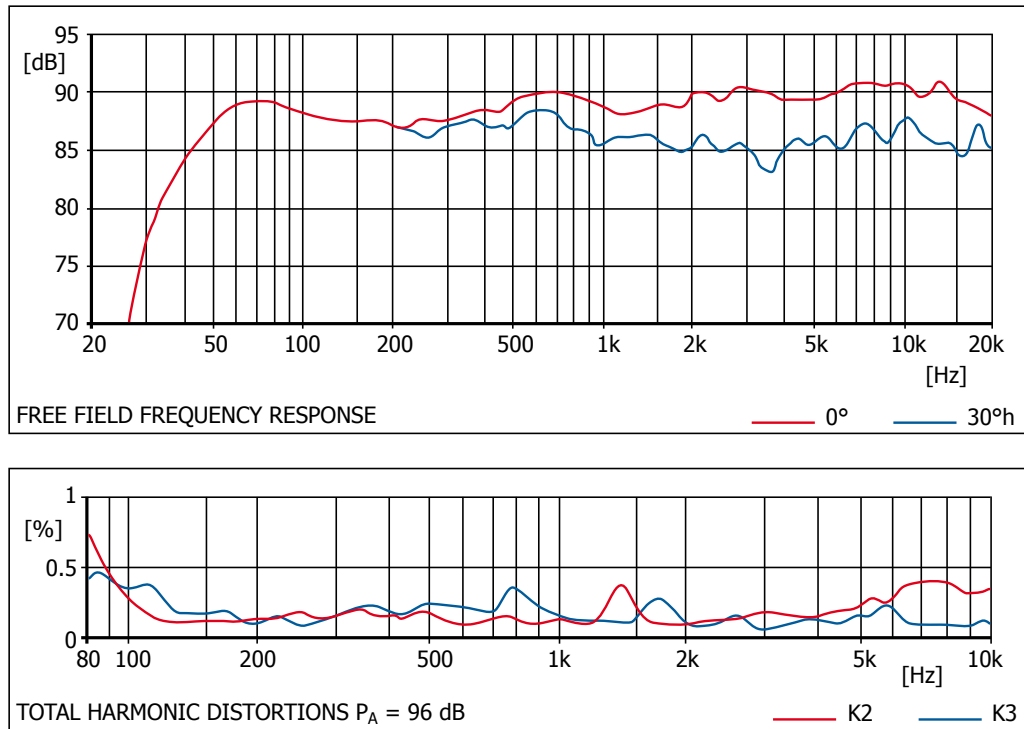
In this case the high and low frequency crossovers are separately connected to your integrated amplifier or power stage. Remove the bridges between the high and low frequency terminals before connecting the speakers to the amplifier. Check the connection for the right polarity. The gold-plated screwed joints are labelled with a + and a – and mustn't be interchanged.

## 7 Specifications

General	Passive high-end floorstanding loudspeaker for listening distances between 2 m (6'7") and 5 m (16'5")
Principle of construction	Coaxial 3-way system in vented cabinet
Maximum SPL	115 dB peak / $r = 1 \text{ m (3'3")}$ ( $4\pi$ )
Bandwidth	40 Hz ... 20 kHz $\pm 3 \text{ dB}$
Sensitivity	89 dB / $r = 1 \text{ m (3'3")}$
Directivity index from 100 Hz ... 10 kHz	increasing from 2 dB to 13 dB
Total harmonic distortion measured at 96 dB <sub>SPL</sub> / $r = 1 \text{ m (3'3")}$ from 100 Hz ... 10 kHz	$\leq -40 \text{ dB}$
Impedance	4 $\Omega$
Electronic crossover frequencies	300 Hz and 2.2 kHz
Nominal power handling	160 W
Maximum power handling	400 W
Recommended amplifier output power	100 W ... 400 W
Input connector	bi-wiring, gold-plated binding posts
Drive units	
Woofer	1 $\times$ 200 mm (8") cone
Mid-range unit	1 $\times$ 200 mm (8") cone
Tweeter	3 $\times$ 25 mm (1") dome
Environmental conditions	
for use	+15 °C ... +35 °C (+59 °F ... +95 °F)
for storage	-25 °C ... +45 °C (-13 °F ... +113 °F)
humidity	45 % ... 75 %
Dimensions	
Loudspeaker (H $\times$ W $\times$ D)	1,070 mm $\times$ 280 mm $\times$ 335 mm (42.2" $\times$ 11.1" $\times$ 13.2")
Base (W $\times$ D)	325 mm $\times$ 370 mm (12.8" $\times$ 14.6")
Weight	32 kg (70.6 lbs)
Design of the cabinet	MDF wood in ash black veneered; different veneers and colours on request

## 8 Acoustic measurements

All acoustic measurements are carried out under anechoic conditions with 2 m (6'7") distance.



## 9 Notes



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