



Achat 110M, Achat 112M, Achat 115M

Passive speaker

Thomann GmbH

Hans-Thomann-Straße 1

96138 Burgebrach

Germany

Telephone: +49 (0) 9546 9223-0

Internet: www.thomann.de

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1 General information

This document contains important instructions for the safe operation of the product. Read and follow the safety instructions and all other instructions. Keep the document for future reference. Make sure that it is available to all those using the product. If you sell the product to another user, be sure that they also receive this document.

Our products and documentation are subject to a process of continuous development. They are therefore subject to change. Please refer to the latest version of the documentation, which is ready for download under www.thomann.de.

1.1 Symbols and signal words

In this section you will find an overview of the meaning of symbols and signal words that are used in this document.

Signal word	Meaning
DANGER!	This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided.
WARNING!	This combination of symbol and signal word indicates a possible dangerous situation that can result in death or serious injury if it is not avoided.
CAUTION!	This combination of symbol and signal word indicates a possible dangerous situation that can result in minor injury if it is not avoided.
NOTICE!	This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided.
Warning signs	Type of danger
	Warning – suspended load.
	Warning – danger zone.

2 Safety instructions

Intended use

This device is designed for sound reinforcement. Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

Safety



DANGER!

Risk of injury and choking hazard for children!

Children can suffocate on packaging material and small parts. Children can injure themselves when handling the device. Never allow children to play with the packaging material and the device. Always store packaging material out of the reach of babies and small children. Always dispose of packaging material properly when it is not in use. Never allow children to use the device without supervision. Keep small parts away from children and make sure that the device does not shed any small parts (such as knobs) that children could play with.



WARNING!

Possible hearing damage due to operating the device at a high volume!

The device can produce volume levels that, when operated at a high volume, may cause temporary or permanent hearing impairment. Over an extended period of time, even levels that seem to be uncritical can cause hearing damage. Avoid operating the device at excessively high volumes over an extended period of time. Decrease the volume level immediately if you experience ringing in your ears or hearing impairment. If this is not possible, keep a greater distance or use adequate ear-muffs.



CAUTION!

Risk of injury due to heavy weight!

The device is heavy. Lifting and dropping it during transport and installation can cause injuries. Make sure at least two people work together when transporting and installing the device.



NOTICE!

Damage to the device if operated in unsuitable ambient conditions!

The device can be damaged if it is operated in unsuitable ambient conditions. Only operate the device indoors within the ambient conditions specified in the "Technical specifications" chapter of this user manual. Avoid operating it in environments with direct sunlight, heavy dirt and strong vibrations. Avoid operating it in environments with strong temperature fluctuations. If temperature fluctuations cannot be avoided (for example after transport in low outside temperatures), do not switch on the device immediately. Never subject the device to liquids or moisture. Never move the device to another location while it is in operation. In environments with increased dirt levels (for example due to dust, smoke, nicotine or mist): Have the device cleaned by qualified specialists at regular intervals to prevent damage due to overheating and other malfunctions.



NOTICE!

Possible staining due to plasticiser in rubber feet!

The plasticiser contained in the rubber feet of this product may react with the coating of the floor and cause permanent dark stains after some time. If necessary, use a suitable mat or felt slide to prevent direct contact between the product's rubber feet and the floor.

3 Features

Achat 110M (item no. 230510, 277965)

Special characteristics of this passive 2-way speaker:

- 10-inch neodymium woofer
- 1-inch ferrite compression tweeter driver
- Beam angle $90^\circ \times 60^\circ$
- Connection options:
 - 2 × lockable Speaker Twist (INPUT/THRU)
- Colour: Black (item no. 230510), white (item no. 277965)
- Multifunctional housing
- M10 thread
- 36 mm pole flange on the bottom
- U-bracket (optional, item no. 258813)
- Protective cover (optional, item no. 243783)

Achat 112M (item no. 230512)

Special characteristics of this passive 2-way speaker:

- 12-inch neodymium woofer
- 1.4-inch neodymium mid-level tweeter
- Beam angle $60^\circ \times 40^\circ$, rotatable horn
- Connection options:
 - 4 × lockable Speaker Twist (TOP/INPUT/THRU/BOTTOM)

- Flying tracks on top of the housing and an eye on the back for tilting. Mounting for vertical suspension optionally available.
- Black textured paint
- M10 thread
- 36 mm pole flange on the bottom
- Protective cover (optional, item no. 243017)

Agate 115M (item no. 214529)

Special characteristics of this passive 2-way speaker:

- 15-inch neodymium woofer
- 1.4-inch neodymium mid-level tweeter
- Beam angle 60° × 40°
- Connection options:
 - 4 × lockable Speaker Twist (TOP/INPUT/THRU/BOTTOM)
- Flying tracks on top of the housing and an eye on the back for tilting. Mounting for vertical suspension optionally available.
- Black textured paint
- M10 thread
- 36 mm pole flange on the bottom
- U-bracket (optional, item no. 258815)
- Protective cover (optional, item no. 249422)

4 Installation

Unpack and check carefully there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the product against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.

Create all connections while the device is off. Use the shortest possible high-quality cables for all connections. Take care when running the cables to prevent tripping hazards.



WARNING!

Risk of injury from falling speakers that were inadequately secured!

If speakers are not properly secured when mounted, they can cause severe injury and considerable damage by falling.

Always secure portable sound systems (speakers) with two independent safety devices, for example with safety cables.



WARNING!

Risk of injury due to improper installation!

Improper mounting can lead to serious injuries and significant damage to property.

When installing and operating, make sure to follow the standards and regulations that apply in your country. In Germany, this is DGUV regulation 17 “Staging and Production Facilities for the Entertainment Industry”.

Ensure that speakers are only mounted by trained specialists.



CAUTION!

Risk of injury due to heavy weight!

The device is heavy. Lifting and dropping it during transport and installation can cause injuries.

Make sure at least two people work together when transporting and installing the device.

**NOTICE!****Possible property damage to adjacent devices due to magnetic fields.**

Speakers generate a static magnetic field. This magnetic field can affect other neighbouring units and in unfavourable cases damage them.

Ensure that speakers are always a sufficient distance away from sensitive equipment that may be affected by an external magnetic field.

**NOTICE!****Potential property damage due to unsuitable stands!**

If the device is mounted on an unsuitable stand, there is a risk that the stand will fall over and cause damage.

Only use stands whose maximum bearing capacity is at least as high as the weight of the device. Always ensure that the stand is stable.

4.1 Tips on handling speakers

We recommend you to set up the speakers in a way, that the sound signals can reach the audience unobstructedly. It will often be helpful to mount the speakers on tripods. Thus, the sound will be evenly spread with maximum range throughout the audience area.

Always use high grade cable to connect your equipment. Otherwise you won't reach maximum sound quality.

For optimum results both impedance and power handling of the speakers must match the requirements of the amplifier. Always follow the technical specifications of the speakers! The overall impedance of the connected loudspeakers must not exceed the minimum output impedance of the amp. The amp's max. RMS output power should be 50 % above the power handling capacity of the connected speakers.

If you notice distortion during operation, either the amp or the speaker is overloaded. This may permanently damage the amp or the speaker. Always reduce the volume when you hear distortion.

4.2 Hanging the speaker box

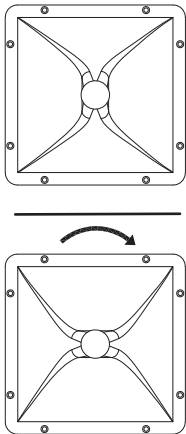
To hang the speaker box on special mounting devices (aka 'flying'), the top of the box offers built-in Aeroquip or fly tracks. In these tracks safety eyelets (double studs) can be screwed or latched. Check the secure connection of the safety eyelets with the box carefully, before you use it in 'flying mode'.

Using an additional loop on the back of the box, it is possible to tilt the box. This additional loop must not solely be in charge to secure the entire suspended weight.

4.3 Mounting bracket

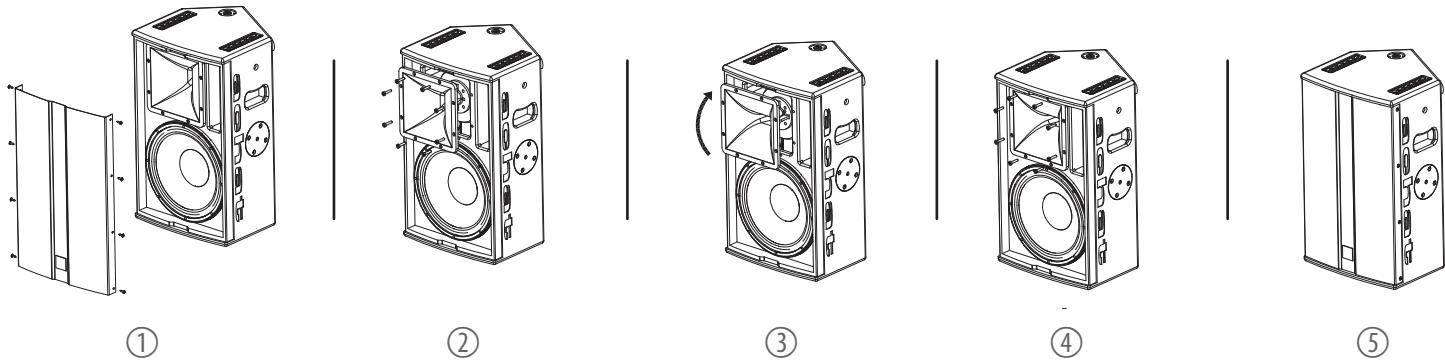
Using the optional mounting brackets (U brackets) for vertical and horizontal mounting, the speaker can stably and securely mounted to the wall, the ceiling or a pipe clamp (half coupler), and, thus, secured to trusses.

4.4 Aligning the horn (only Achat 112M)



The Achat 112M speaker (item no. 230512) has a rotatable horn speaker. By rotating the speaker, the beam angle of the high frequencies can be adapted to the respective ambient conditions. The following table shows the beam angles based on the alignment of the speaker.

Figure	Alignment	Horizontal	Vertical
Top	Standard	60°	40°
Bottom	Rotated	40°	60°

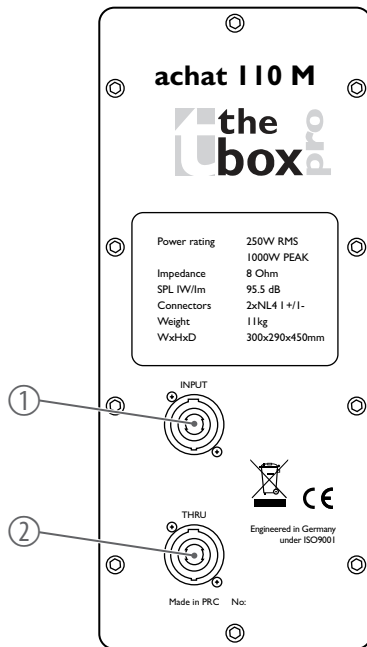


To rotate the horn speaker, proceed as follows:

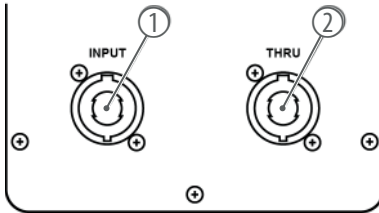
1. ➤ Loosen and remove the screws of the speaker grille on both sides and remove the speaker grille.
2. ➤ Loosen and remove the screws of the horn speaker.
3. ➤ Rotate the horn speaker 90°.
4. ➤ Secure the horn speaker with the screws.
5. ➤ Insert the speaker grille correctly aligned (logo below) and secure the speaker grille with the screws.

5 Connections

Achat 110M



- 1 *[INPUT]* | Input, designed as a lockable Speaker Twist
- 2 *[THRU]* | Connection for connecting another passive speaker, designed as a lockable Speaker Twist

Achat 112M, Achat 115M

1, 2 [INPUT/THRU] | Two Speaker Twist connections with parallel wiring on the back

Additional Speaker Twist connections are located on the top and bottom side of the housing.
Find more information about the wiring of the Speaker Twist connections on the rear panel of the housing.

6 Technical specifications

Achat 110M

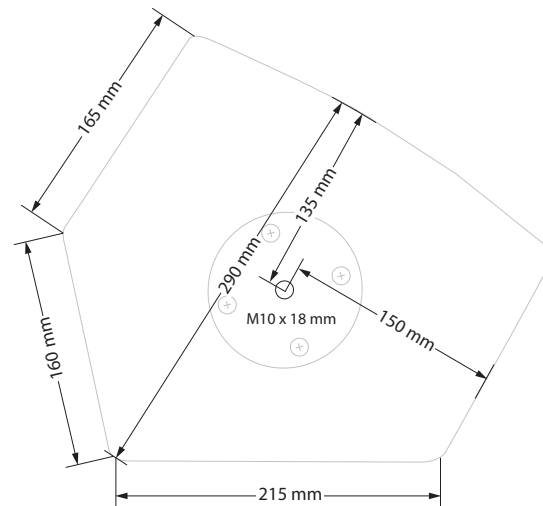
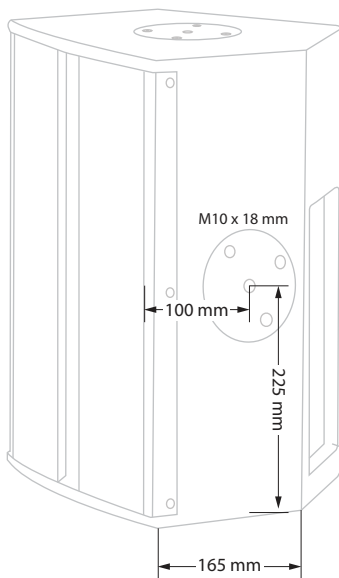
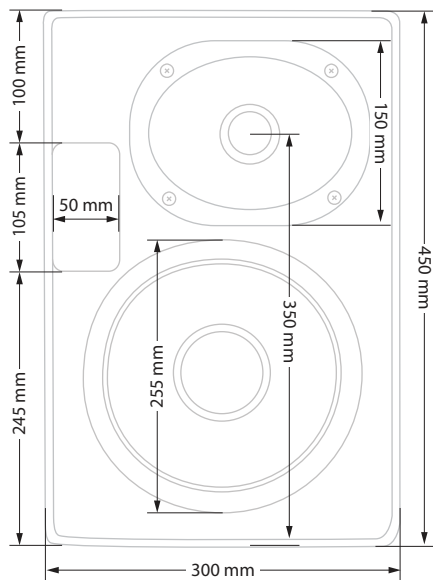
System	Passive 2-way speaker
Configuration	1 × 10-inch neodymium woofer (with 3-inch voice coil) 1 × 1-inch ferrite compression tweeter driver (with 1 3/8-inch voice coil)
Input connections	1 × Speaker Twist
Output connections	1 × Speaker Twist
Frequency range	70 Hz ... 20 kHz
Load capacity	250 W (RMS), 1000 W (peak)
Sensitivity (1 W/1 m)	96 dB SPL
Rated impedance	8 Ω
Max. sound pressure level	120 dB SPL
Max. short-term sound pressure level	126 dB SPL
Beam angle (H × V)	90° × 60°
Dimensions (W × H × D)	300 mm × 450 mm × 290 mm
Weight	11 kg

Ambient conditions	Temperature range	0 °C...40 °C
	Relative humidity	20%...80% (non-condensing)

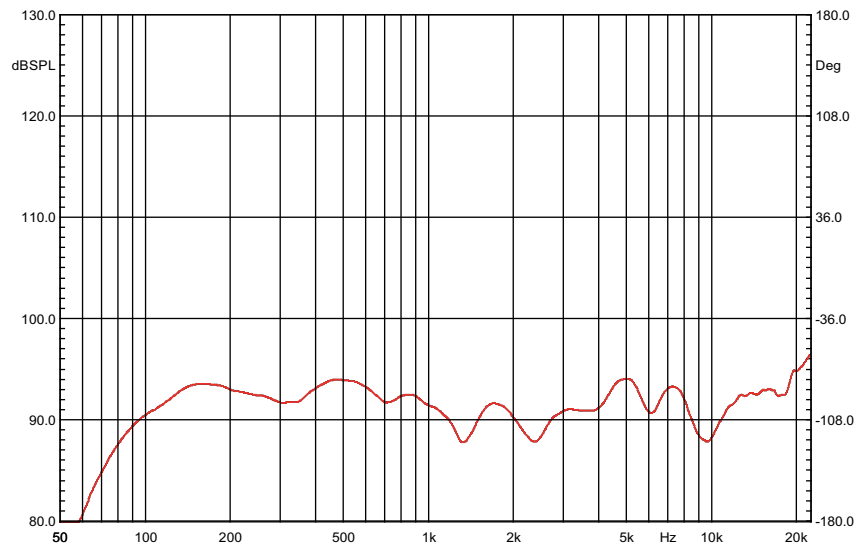
Further information

Housing	Wood
Colour	Black (item no. 230510), white (item no. 277965)
Truss-capable	M10
Monitor inclination	Yes
Ways	2-way
Stand flange	36 mm
U-bracket	Optional (item no. 258813)
Protective cover	Optional (item no. 243783)

Dimensions



Frequency response



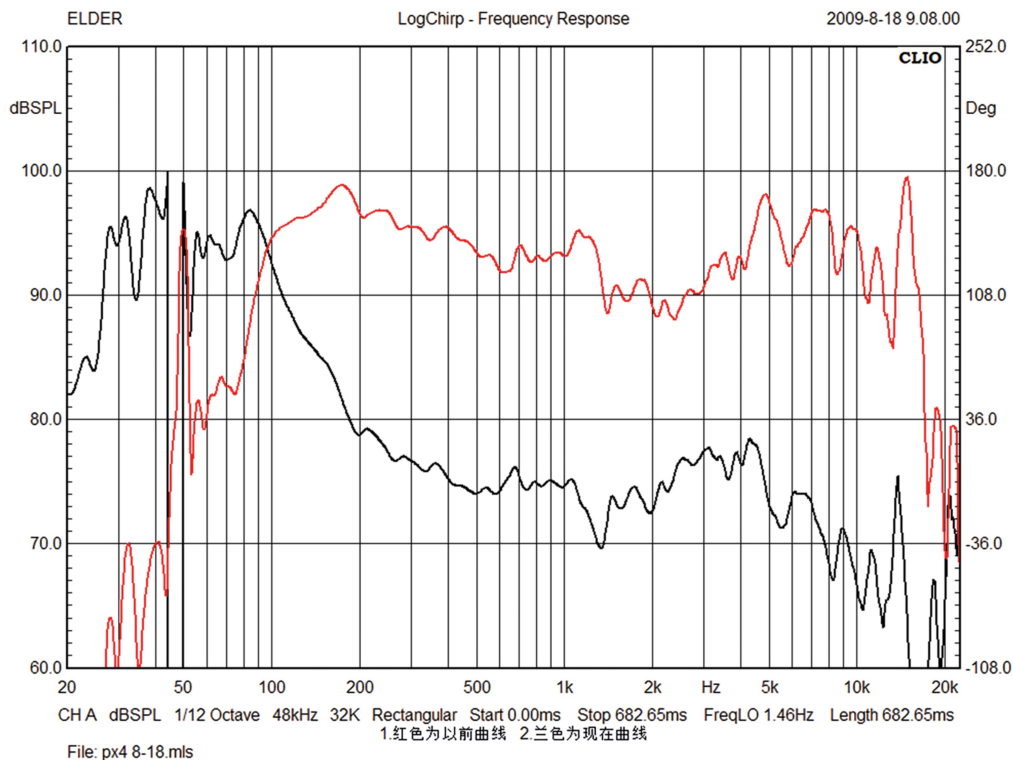
Achat 112M

System	Passive 2-way speaker	
Configuration	1 × 12-inch neodymium woofer (with 3-inch voice coil) 1 × 1.4-inch neodymium mid-level tweeter (with 1.4-inch voice coil)	
Input connections	2 × Speaker Twist	
Output connections	2 × Speaker Twist	
Frequency range	60 Hz ... 18 kHz, -3 dB	
Load capacity	350 W (RMS), 1400 W (peak)	
Sensitivity (1 W/1 m)	99 dB SPL	
Rated impedance	8 Ω	
Max. sound pressure level	124 dB SPL	
Max. short-term sound pressure level	130 dB SPL	
Beam angle (H × V)	60° × 40° (rotatable horn)	
Dimensions (W × H × D)	360 mm × 600 mm × 365 mm	
Weight	21 kg	
Ambient conditions	Temperature range	0 °C...40 °C
	Relative humidity	20%...80% (non-condensing)

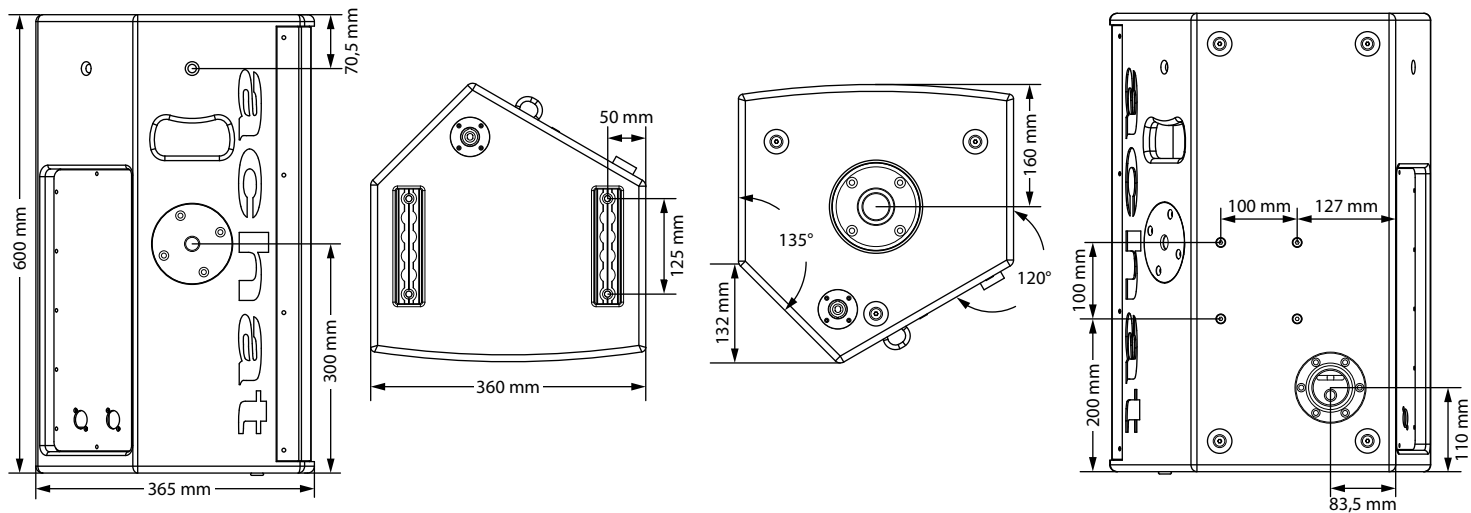
Further information

Housing	Wood
Colour	Black
Truss-capable	M10
Monitor inclination	Yes
Ways	2-way
Stand flange	36 mm
Wall mount	No
Protective cover	Optional (item no. 243017)

Frequency response



Dimensions



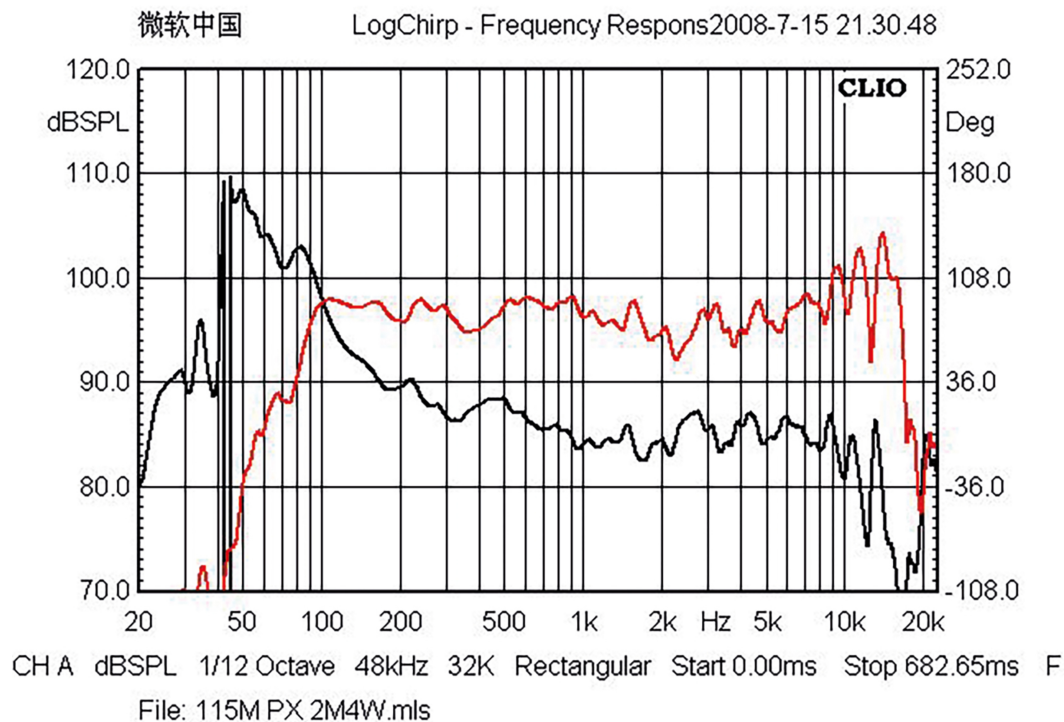
Achat 115M

System	Passive 2-way speaker	
Configuration	1 × 15-inch neodymium woofer (with 4-inch voice coil) 1 × 1.4-inch neodymium mid-level tweeter (with 1.4-inch voice coil)	
Input connections	2 × Speaker Twist	
Output connections	2 × Speaker Twist	
Frequency range	60 Hz ... 17 kHz, -3 dB	
Load capacity	350 W (RMS), 1400 W (peak)	
Sensitivity (1 W/1 m)	99 dB SPL	
Rated impedance	8 Ω	
Max. sound pressure level	124 dB SPL	
Max. short-term sound pressure level	130 dB SPL	
Beam angle (H × V)	60° × 40°	
Dimensions (W × H × D)	436 mm × 766 mm × 438 mm	
Weight	32 kg	
Ambient conditions	Temperature range	0 °C...40 °C
	Relative humidity	20%...80% (non-condensing)

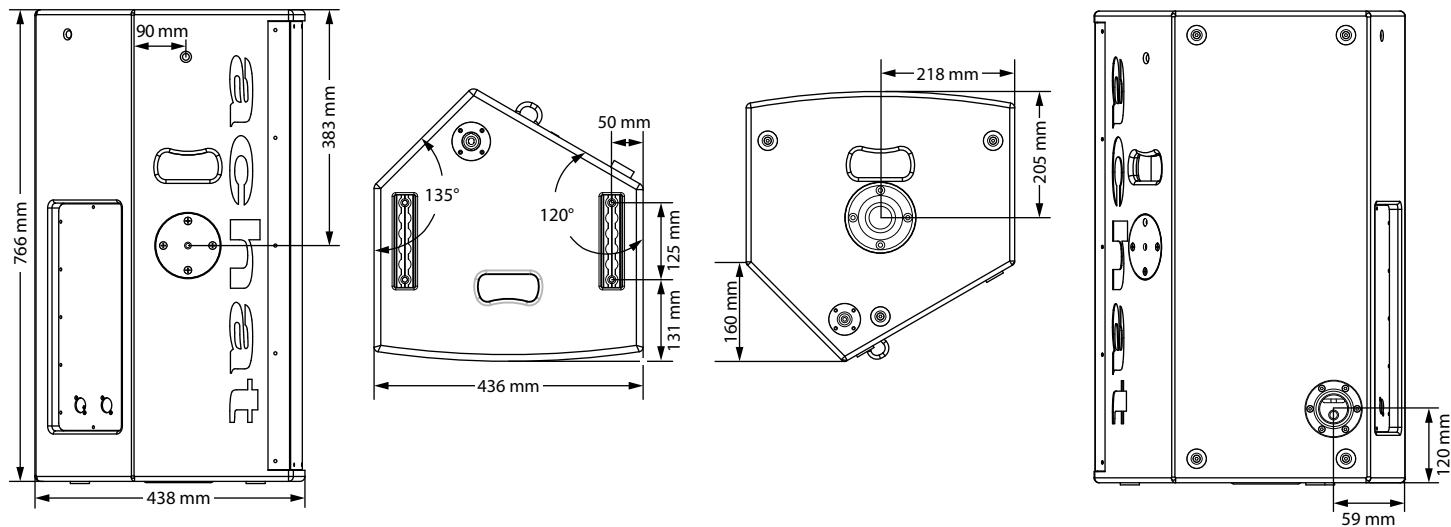
Further information

Housing	Wood
Colour	Black
Truss-capable	M10
Monitor inclination	Yes
Ways	2-way
Stand flange	36 mm
Wall mount	No
U-bracket	Optional (item no. 258815)
Protective cover	Optional (item no. 249422)

Frequency response



Dimensions



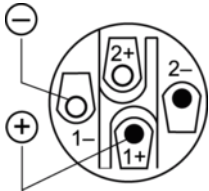
7 Plug and connection assignment

Introduction

This chapter will help you select the right cables and plugs to connect your valuable equipment in such a way that a perfect sound experience is ensured.

Please note these advices, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into the socket, an incorrect connection may result in a destroyed power amp, a short circuit or 'just' in poor transmission quality!

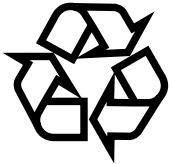
Speaker Twist connector



1+	Signal 1 (in phase)
1-	Signal 1 (out of phase)

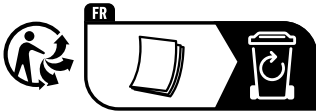
8 Protecting the environment

Disposal of the packing material



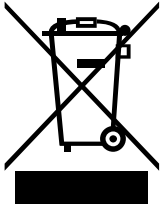
Environmentally friendly materials have been chosen for the packaging. These materials can be sent for normal recycling. Ensure that plastic bags, packaging, etc. are disposed of in the proper manner.

Do not dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the instructions and markings on the packaging.



Observe the disposal note regarding documentation in France.

Disposal of your old device



This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE) as amended.

Do not dispose of your old device with your normal household waste; instead, deliver it for controlled disposal by an approved waste disposal firm or through your local waste facility. If in doubt, consult your local waste management facility. You can also return the device to a retailer if they offer to take the device back for free or if they are legally obliged to do so. When disposing of the device, comply with the rules and regulations that apply in your country. You can also return your old device to Thomann GmbH at no charge. Check the current conditions on www.thomann.de.

Proper disposal protects the environment as well as the health of your fellow human beings. This is because the proper handling of old devices negates the potential negative effects of hazardous substances, and because it conserves resources by recycling them.

Also note that waste avoidance is a valuable contribution to environmental protection. Repairing a device or passing it on to another user is an ecologically valuable alternative to disposal.

If your old device contains personal data, delete those data before disposing of it.

