the box pro

TP 108 MA

active 2 way full-range speaker

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MUSIC IS OUR PASSION

user manual

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1 General notes

This user manual contains important information on safe operation of the device. Read and follow all safety notes and all instructions. Save this manual for future reference. Make sure that it is available to all persons using this device. If you sell the device to other users, be sure that they also receive this manual.

Our products are subject to a process of continuous development. We therefore reserve the right to make changes without notice.

Symbols and signal words

This section provides an overview of the symbols and signal words used in this user manual.

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 – high-voltage.
	Warning – suspended load.
	Warning – danger zone.

2 Safety instructions

Intended use

This device is intended to be used in a sound reinforcement system. 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!

Danger for children

Ensure that plastic bags, packaging, etc. are disposed of properly and are not within reach of babies and young children. Choking hazard!

Ensure that children do not detach any small parts (e.g. knobs or the like) from the unit. They could swallow the pieces and choke!

Never let children unattended use electrical devices.

DANGER!

Electric shock caused by high voltages inside

Within the device there are areas where high voltages may be present. Never remove any covers.

There are no user-serviceable parts inside.

DANGER!

Electric shock caused by short-circuit

Always use proper ready-made insulated mains cabling (power cord) with a protective contact plug. Do not modify the mains cable or the plug. Failure to do so could result in electric shock/death or fire. If in doubt, seek advice from a registered electrician.

CAUTION!

Possible hearing damage

The device can produce volume levels that may cause temporary or permanent hearing impairment. Over an extended period of time, even levels that seem to be uncritical can cause hearing damage.

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 sufficient ear protectors.

NOTICE!

Risk of fire

Do not cover the device nor any ventilation slots. Do not place the device near any direct heat source. Keep the device away from naked flames.

NOTICE!

Operating conditions

This device has been designed for indoor use only. To prevent damage, never expose the device to any liquid or moisture. Avoid direct sunlight, heavy dirt, and strong vibrations.

NOTICE!

Power supply

Before connecting the device, ensure that the input voltage (AC outlet) matches the voltage rating of the device and that the AC outlet is protected by a residual current circuit breaker. Failure to do so could result in damage to the device and possibly injure the user.

Unplug the device before electrical storms occur and when it is unused for long periods of time to reduce the risk of electric shock or fire.

3 Features

Special features of the device:

- 2-way system: 1" titanium membrane tweeter and 8" woofer
- Microphone and line input
- Mix-out outlet to connect further audio devices
- Rigging points M10 on top and bottom side of the unit
- 35 mm tripod flange
- Wall-mountable with optional accessories

4 Installation

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

Establish all connections as long as the unit is switched off. Use the shortest possible high-quality cables for all connections.

WARNING!

Risk of injury caused by falling objects

Make sure that the installation complies with the standards and rules that apply in your country. Always secure the device with a secondary safety attachment, such as a safety cable or a safety chain.

NOTICE!

Possible property damage by magnetic fields

Loudspeakers produce a static magnetic field. Therefore, maintain an appropriate distance to devices that can be adversely affected or damaged by an external magnetic field.

NOTICE!

Use of stands

When mounting the device onto a stand, ensure that the stand is in a safe and stable position and that the weight of the device does not exceed the maximum permissible load capacity of the stand.

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 deceed the minimum output impedance of the amp. The amps 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.

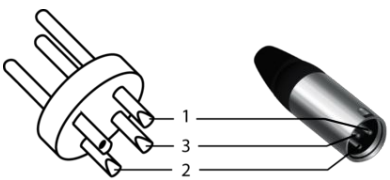
4.2 Pin assignment

You can use XLR and 1/4" plugs with balanced or unbalanced wiring. In the following, we will give you an overview of the various options.

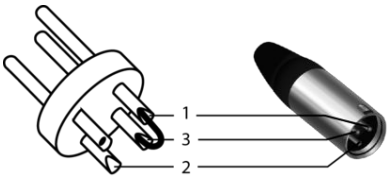
XLR connections for signal in and outputs

XLR chassis sockets serve as signal inputs, XLR chassis plugs serve as signal outputs. Drawing and table indicate the XLR pin assignment.

Balanced wiring:



1	Ground, shielding
2	Positive signal (+)
3	Negative signal (–)



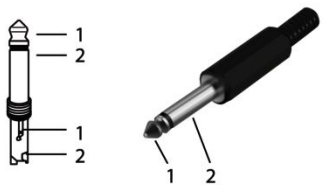
Unbalanced wiring:

1	Ground, shielding
2	Signal
3	Bridged to pin 1

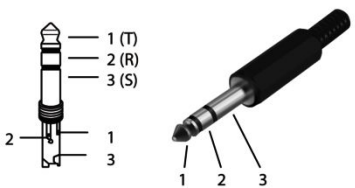
Phone sockets for signal input

Drawing and table indicate the pin assignment of 1/4" phone plugs to be used.

Unbalanced wiring (TS plug):

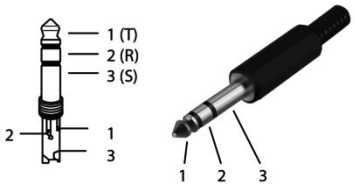


1	Signal
2	Ground, shielding



Unbalanced wiring (TRS plug):

1	Signal
2, 3	Ground, shielding

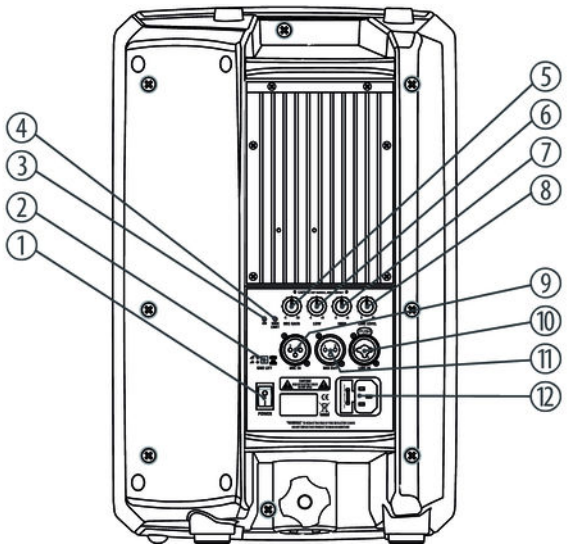


Balanced wiring (TRS plug):

1 (Tip)	Positive signal (+)
2 (Ring)	Negative signal (–)
3 (Sleeve)	Ground, shielding

5 Connections and operating elements

Rear panel

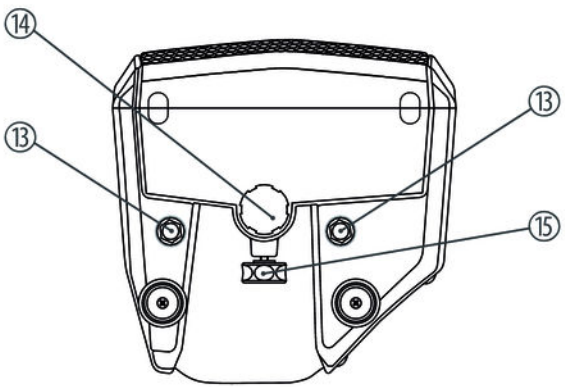


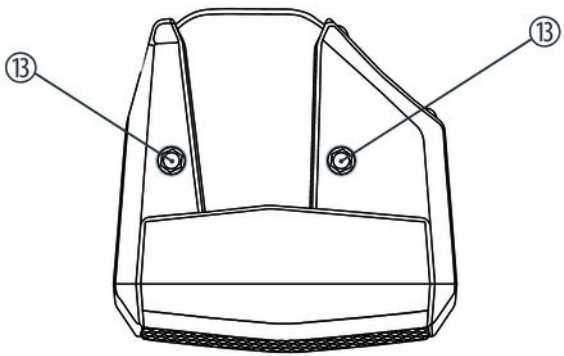
1	Mains switch **POWER** Turns the unit on and off.
2	**GND LIFT** button If a ground loop is causing hum you can use this key to break the connection between the earth pin of the device and the signal ground in the device. The switch will only have an effect when using balanced connection cables.
3	**ON** LED This LED lights up green when the device is turned on and power supply is present.
4	LED **SIGN/LIMIT** This LED lights up green when an input signal is present. This LED lights up red when the internal output signal is being limited (due to excessive input signal level!).
5	Rotary control **MIC GAIN** **MIC IN** input signal gain control to adapt the active speaker to the characteristic of the used microphone.

6	Rotary control **LOW** Controller for attenuating or raising the low frequencies.
7	Rotary control **HIGH** Controller for attenuating or raising the high frequencies.
8	Rotary control **LINE LEVEL** LINE input signal gain control. Turn the knob, starting from zero position, clockwise or counterclockwise to increase or decrease the volume of this input. In zero position, the signal is fully attenuated. In right end stop position, the signal is processed without any attenuation.
9	XLR chassis socket (balanced) **MIC IN** Balanced connection for a microphone.
10	XLR / phone combo socket **LINE IN** Connection for a balanced or unbalanced line input signal.

11	XLR chassis plug (unbalanced) **MIX OUT** Unbalanced outlet for microphone and line signal. Here you can connect further audio devices, like active speakers etc.
12	IEC chassis connector **AC~** with fuse holder Power supply connection. If the fuse blows, you have to replace it by a new one with same specifications. Before you must disconnect the unit from the mains power.

Bottom / top side





13	Rigging points M10.
14	35 mm tripod flange.
15	Locking screw for tripod mounting.

6 Technical specifications

Speakers	8" woofer and 1" titanium membrane tweeter
Maximum SPL	122 dB (peak)
Frequency response	60 Hz…20 kHz
Crossover frequency	3 kHz
Slope	24 db / octave
Inputs	Line: XLR / phone combo socket (balanced and unbalanced useable)
	Microphone: XLR chassis socket (balanced)
Output	XLR chassis plug (unbalanced)
Output power	360 W (peak)
Input sensitivity	Line: +4 dBu
	Microphone: –5…–35 dBu
Input impedance	XLR / phone combo sockets: 20 kΩ (balanced), 10 kΩ (unbalanced)

Dispersion angle (V × H)	60° × 90°
Operating supply voltage	AC 210 – 240 V ~ , 50 Hz AC 105 – 120 V ~ , 60 Hz
Power consumption	200 W (maximum)
Dimensions (W × D × H)	270 mm × 260 mm × 420 mm
Weight	10 kg

7 Troubleshooting

In the following we list a few common problems that may occur during operation. We give you some suggestions for easy troubleshooting:

Symptom	Remedy
The unit does not work	Check the mains connection and the setting of the mains switch **POWER**.
No sound	1. Check the position of the rotary control **LINE LEVEL** or **MIC GAIN**.
	2. Check whether the **SIGN/LIMIT** LED lights up green. If it doesn't, the input signal is too weak or not present.
	3. Check for correct connection of the signal cables.
	4. Check the signal cables and / or the signal source.
	5. Try using another signal cable.

Symptom	Remedy
Reduced treble with increased volume	There might be the risk of overheating. Provide better ventilation or turn down the volume.
You hear distortion	Excessive input signal. Reduce the signal level. Never operate the speaker with such a high signal level that the indicator LED **SIGN/LIMIT** lights solid red!
Noise and hum occur	1. Press the **GND LIFT** button, possibly also on all other devices involved, if available.
	2. Only use cables with balanced wiring.
	3. Make sure that all audio devices are connected to the same power supply circuit and therefore share the same ground reference.

If the procedures recommended above do not succeed, please contact our Service Center. You can find the contact information at *www.thomann.de*.

8 Protecting the environment

Disposal of the packaging material

For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling.

Ensure that plastic bags, packaging, etc. are properly disposed of.

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

Disposal of your old device

This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE). Do not dispose with your normal household waste.

Dispose of this device through an approved waste disposal firm or through your local waste facility. When discarding the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.

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