

the
box **pro**

TP 105 MA

active 2 way
full-range speaker

Musikhaus Thomann
Thomann GmbH
Hans-Thomann-Straße 1
96138 Burgebrach
Germany
Telephone: +49 (0) 9546 9223-0
E-mail: info@thomann.de
Internet: www.thomann.de

27.07.2015, ID: 291776

Table of contents

1	General notes	4
2	Safety instructions	7
3	Features	11
4	Installation	12
	4.1 Tips on handling speakers.....	14
	4.2 Hanging the speaker.....	15
	4.3 Pin assignment.....	15
5	Connections and operating elements	19
6	Technical specifications	23
7	Troubleshooting	25
8	Protecting the environment	28

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
 A yellow triangular warning sign with a black border and a black lightning bolt symbol in the center, indicating high voltage.	Warning – high-voltage.
 A yellow triangular warning sign with a black border and a black symbol of a person standing next to a suspended load, indicating a suspended load.	Warning – suspended load.
 A yellow triangular warning sign with a black border and a black exclamation mark in the center, indicating a general danger zone.	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 this device:

- 2-way system: dome tweeter and 5" woofer
- XLR, 1/4" and RCA connections
- M6 rigging points on top side and bottom
- Tripod and wall mounting possible 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.

**CAUTION!****Risk of injury due to heavy weight**

Due to the heavy weight of the device, at least two persons are required for transport and installation.

**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 exceed 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.

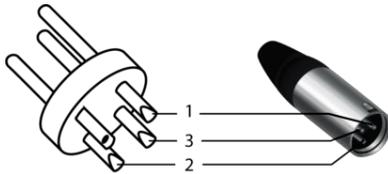
4.2 Hanging the speaker

Top side and bottom of the speaker box provide M6 threads to hang the speaker on special rigging systems (often called 'flying'). You can insert screw eyes into these threads. Check for secure connection before you use it in 'flying mode'.

4.3 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.

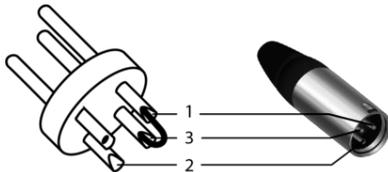
XLR connections for signal in and outputs



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

Balanced wiring:

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



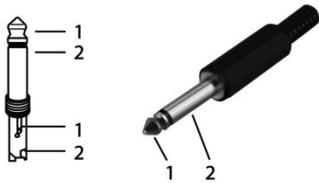
Unbalanced wiring:

1	Ground, shielding
2	Signal
3	Bridged to pin 1

1/4" phone sockets for signal in and outputs

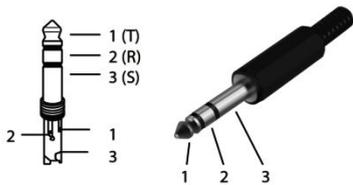
Drawing and table indicate the pin assignment of a 1/4" TS phone plug to be used..

Unbalanced wiring (1/4" TS phone plug):

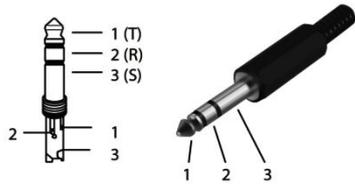


1	Signal
2	Ground, shielding

Unbalanced wiring (1/4" TRS phone plug):



1	Signal
2, 3	Ground, shielding

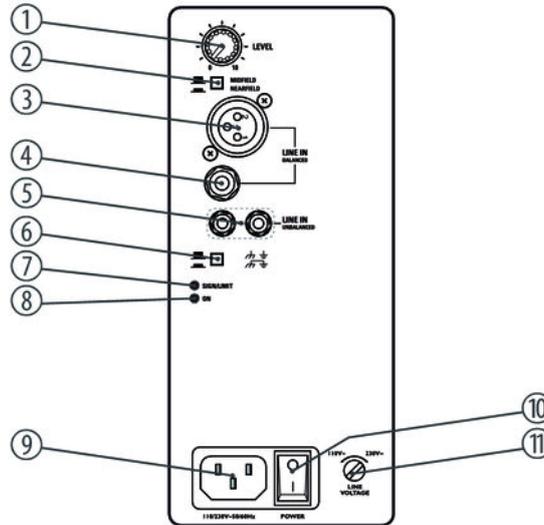


Balanced wiring (1/4" TRS phone plug):

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

5 Connections and operating elements

Rear panel



TP 105 MA

1	Rotary control [<i>LEVEL</i>] Use this knob to adjust the input signal level.
2	Push button [<i>MIDFIELD / NEARFIELD</i>] Use this switch to select different EQ characteristics and thus the operating mode of the speaker. MIDFIELD: monitor operation NEARFIELD: computer operation or desktop speaker
3	XLR mounting socket LINE IN BALANCED
4	1/4" phone socket LINE IN BALANCED
5	RCA sockets LINE IN UNBALANCED Both sockets are wired in parallel. So you can feed the signal to another speaker. Sensitivity is 10 dB higher than for the XLR and 1/4" connectors. Thus the connection of computers and CD / MP3 players is possible.

6	<p>Ground/Lift push button</p> <p>If hum is caused by a ground loop you can use this switch to separate the connection between the earth pin of the device and the signal ground in the device.</p>
7	<p>LED SIGN/LIMIT</p> <p>This LED lights up green on incoming input signals.</p> <p>This LED lights up red when the output signal is limited by the device due to an excessive input signal level.</p>
8	<p>LED ON</p> <p>This LED lights up green when the device is turned on and the supply voltage is available.</p>
9	<p>IEC chassis connector AC~</p> <p>Connection for mains supply voltage.</p>

- | | |
|----|--|
| 10 | Mains switch [<i>POWER</i>]
Turns the unit on or off. |
| 11 | Rotary switch [<i>LINE VOLTAGE</i>]
This switch is used to adapt the device to your local power grid.
110: AC 105...120 V ~
230: AC 210...240 V ~ |

6 Technical specifications

Speakers	5" woofer and 1" tweeter
Max. sound pressure level	114 dB
Frequency response	70 Hz...20 kHz
Cutoff frequency	3 kHz
Woofer	80 W, D class
Tweeter	20 W
Inputs	XLR sockets, 1/4" phone sockets, RCA sockets
Input sensitivity	XLR and phone socket: 0.775 V / 0 dB
	RCA socket: 0.245 V / -10 dB
Input impedance	XLR and phone socket: 20 k Ω (balanced), 10 k Ω (unbalanced)
	RCA socket: 10 k Ω (unbalanced)
Dispersion (V \times H)	60° \times 90°

Technical specifications

Operating supply voltage	AC 210 – 240 V ~ , 50 Hz AC 105 – 120 V ~ , 60 Hz
Power consumption	100 W
Dimensions (W × D × H)	175 mm × 170 mm × 260 mm
Weight	3.6 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	1. Check the mains power connection and the position of the <i>[POWER]</i> switch.
There is no sound	1. Check the position of the <i>[LEVEL]</i> control.
	2. Check, whether the BIN/LIMIT LED lights up green. Otherwise, the input signal is too weak or not present.
	3. Check for proper connection of the signal cable.
	3. Check the signal cable and/or the signal source.
4. Try using another signal cable.	
When the music is loud, the high frequencies plummet	HF limiting is active. Reduce the volume.

Symptom	Remedy
There's distortion	The input signal is too strong. Reduce the signal level. Never operate the speaker box with such a high level, that the BIN/LIMIT LED lights up red constantly!
There's different channel levels	<ol style="list-style-type: none">1. Check, whether the same kind of cables (balanced, unbalanced) is used for both channels.2. Check, whether your speaker system is completely wired and both speakers feature the same input sensitivity.
There's hum and noise	<ol style="list-style-type: none">1. Press the 'Ground/Lift' push button on all amplifiers connected to the system, if applicable.2. Make sure that only balanced cables are used.3. Make sure that all audio devices are connected on the same power circuit and therefore share common ground potential.

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.

TP 105 MA



