



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

17.05.2016, ID: 299659, 299658, 299657

Table of contents

1	1 General notes	
2	Safety instructions	7
3	Features	12
4	Installation	13
	4.1 Tips on handling speakers	15
	4.2 Speaker rigging	16
	4.3 Pin assignment	16
5	Connections and operating elements	20
6	Technical specifications	26
7	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	Warning – high-voltage.
	Warning – suspended load.
\triangle	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.



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!

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

The device is particularly suitable for use in churches, conference rooms and multi-purpose halls.

Special features of the device:

- Item no. 299659: 10" woofer, 1.4" tweeter Item no. 299658: 12" woofer, 1.7" tweeter Item no. 299657: 15" woofer, 1.7" tweeter
- Class-D amplifier for LF Class-AB amplifier for HF
- Integrated sound processor (DSP) with 3 modes (Music, Flat, Low Cut)
- Connection options: XLR / 1/4" combo sockets for signal input, XLR mounting connectors for signal outputs
- M8 rigging points
- Built-in feet for monitor applications
- Double pole mounting flange (vertical and 5° inclination)
- Ceiling mountable (with optional mounting bracket)
- Powder-coated front grille



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.

You can install the device on the wall, ceiling or floor.

Establish all connections as long as the unit is switched off. Use the shortest possible highquality 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.



active 2 way full-range speaker



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.

If you notice distortion during operation, the active speaker is overloaded. This may permanently damage the device. Always reduce the volume as soon as you hear distortion.



4.2 Speaker rigging

For rigging the speaker box on special mounting devices, M8 threads are flush-mounted on top, bottom and sides of the box. You can insert screw eyes into these threads. Check for secure connection of the screw eyes to the box, before rigging the box.

4.3 Pin assignment

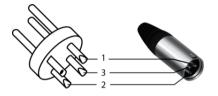
You can use XLR and 1/4" plugs with balanced or unbalanced wiring. In the following, we will give you an overview of the various options.



XLR connections for signal in and outputs

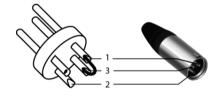
XLR mounting sockets serve as signal inputs, XLR mounting plugs serve as signal outputs. Drawing and table indicate the XLR pin assignment.

Balanced wiring:



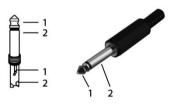
1	Ground, shielding
2	Positive signal (+)
3	Negative signal (–)

Unbalanced wiring:



1	Ground, shielding
2	Signal
3	Bridged to pin 1

Phone plugs for signal in and outputs

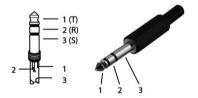


Drawing and table indicate the pin assignment of 1/4" phone plugs.

Unbalanced wiring (TS phone plug):

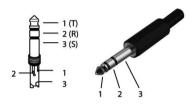
1	Signal
2	Ground, shielding

Unbalanced wiring (TRS phone plug):



1	Signal
2, 3	Ground, shielding



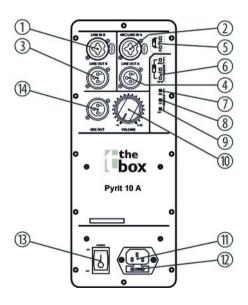


Balanced wiring (TRS phone plug):

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

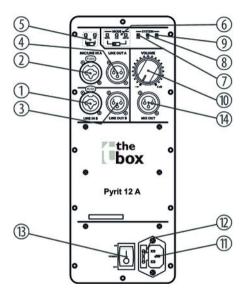
5 Connections and operating elements

Rear panel Pyrit 10A

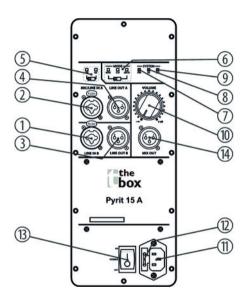




Rear panel Pyrit 12A



Rear panel Pyrit 15A





	1	LINE IN B	
		XLR / 1/4" combo socket for line signal input.	
	2	MIC/LINE IN A	
		Balanced XLR / 1/4" combo socket for microphone / line signal input.	
	3	LINE OUT B	
		XLR mounting plug for line signal output.	
4 LINE OUT A			
		XLR mounting plug for line signal output.	
	5	Slide switch for selecting the input sensitivity of the amplifier (line or microphone) on signal input A.	
		Depending on the selected input sensitivity, the corresponding LED (LINE , MIC) lights up.	



6 MODE

Slide switch for selecting the operating mode: MUSIC, FLAT, LOW CUT.

LEDs indicate the selected operating mode.

Before you change the operating mode, please turn off the unit. This will help prevent damage.

7 LED PWR

Indicates that the power supply is present.

8 LED SIG

Indicates an incoming input signal.

9 LED CLIP

Indicates overload (clipping). In this case the level of the line input signal is too high.

10 VOLUME

Volume control.



11	Power supply connection		
	IEC chassis connector for power supply.		
12	Fuse holder		
	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.		
13	POWER ON/OFF		
	Mains switch to turn the unit on or off.		
14	MIX OUT		
	Line signal output (e.g. for a mixing console). Provides both signal outputs A and B.		

6 Technical specifications

	Pyrit 10A, item no. 299659	Pyrit 12A, item no. 299658	Pyrit 15A, item no. 299657
System	Active 2-way full-range speaker box	Active 2-way full-range speaker box	Active 2-way full-range speaker box
Speakers	1 × 10" woofer	1 × 12" woofer	1 × 15" woofer
	Titan compression driver for 1×1.4 " tweeter	Titan compression driver for 1×1.7 " tweeter	Titan compression driver for 1×1.7 " tweeter
Inputs	XLR / 1/4" combo sockets	XLR / 1/4" combo sockets	XLR / 1/4" combo sockets
Outputs	XLR mounting connector	XLR mounting connector	XLR mounting connector
Input impedance	20 kΩ (balanced), 10 kΩ (unbalanced)	20 kΩ (balanced), 10 kΩ (unbalanced)	20 kΩ (balanced), 10 kΩ (unbalanced)
Frequency response (–3 dB)	55 Hz 20 kHz	50 Hz 20 kHz	45 Hz 20 kHz
Power handling	250 W (RMS) / 1000 W (PEAK)	300 W (RMS) / 1200 W (PEAK)	350 W (RMS) / 1400 W (PEAK)
Sound pressure level	122 dB / 1 m (max.)	127 dB / 1 m (max.)	128 dB / 1 m (max.)



	Pyrit 10A, item no. 299659	Pyrit 12A, item no. 299658	Pyrit 15A, item no. 299657
Sensitivity	93 dB (1 W / 1 m)	97 dB (1 W / 1 m)	97 dB (1 W / 1 m)
Dispersion angle $(H \times V)$	90°×60°	90°×60°	90°×60°
Operating supply voltage	230 V ∼ 50 Hz	230 V ∼ 50 Hz	230 V ∼ 50 Hz
Dimensions (W \times H \times D)	306 mm × 516 mm × 238 mm	368 mm × 630 mm × 349 mm	460 mm × 780 mm × 396 mm
Fuse	5 mm x 20 mm, 2,5 A, 250 V, träge	5 mm x 20 mm, 5 A, 250 V, träge	5 mm x 20 mm, 5 A, 250 V, träge
Weight	13.8 kg	21 kg	28.7 kg

7 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.







