



**the
box**

Pyrit 10A, 12A, 15A
active 2-way full-
range speaker

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18.09.2020, ID: 299659, 299658, 299657 (V2)

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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 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!

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.

Do not use the device if covers, protectors or optical components are missing or damaged.



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!****Possible damage due to installation of a wrong fuse**

The use of different types of fuses can cause serious damage to the unit. Fire hazard!

Only fuses of the same type may be used.

**NOTICE!****Risk of fire**

Do not block areas of ventilation. Do not install 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-inch woofer, 1.4-inch tweeter
Item no. 299658: 12-inch woofer, 1.7-inch tweeter
Item no. 299657: 15-inch woofer, 1.7-inch tweeter
- Class D amplifier for LF
Class AB amplifier for HF
- Built-in sound processor (DSP) with 3 modes (Music, Flat, Low Cut)
- Connection options: XLR / 1/4" jack combo socket for signal input, XLR panel plug for signal output
- Item no. 299659: M6 rigging points
Item no. 299658 and 299657: 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 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.

You can install the device standing or hanging. When in use, the device must be mounted at a solid surface or clamped to an approved truss.

Work from a stable platform whenever you install or move the device or when you perform any kind of maintenance. Block access under the work area.

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 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.

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 Hanging the speaker box

To hang the speaker box on special mounting devices (aka 'flying'), top, bottom and sides of the box have M6 threads (item no. 299659) or M8 threads (item no. 299657 and 299658). Safety eyes can be screwed into these threads. Check the secure connection of the safety eyelets with the box carefully, before you use it in 'flying mode'.

4.3 Pin assignment

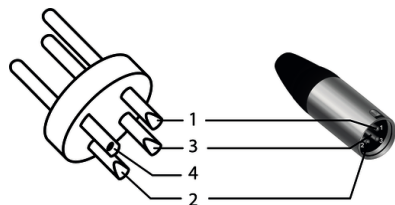
You may use XLR and jack connectors with either balanced or unbalanced pinout. Below you will find an overview of the different options.

XLR connections for signal inputs/outputs

XLR panel sockets are provided for signal inputs. XLR panel plugs are provided for signal outputs. The figure and the table show the XLR pin assignment.

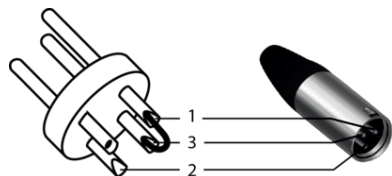
Balanced pinout:

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



Unbalanced pinout:

1	Ground
2	Signal
3	Jumpered with pin 1



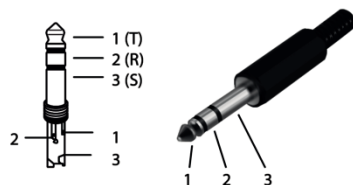
Jack plug for signal in and outputs



The figure and the table show the pin assignment for ¼-inch jack plugs.

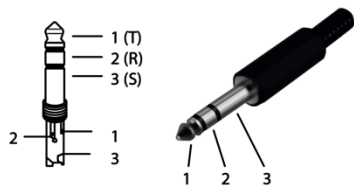
Unbalanced wiring (jack plug, mono):

1	Signal
2	Ground



Unbalanced wiring (jack plug, stereo):

1	Signal
2, 3	Ground



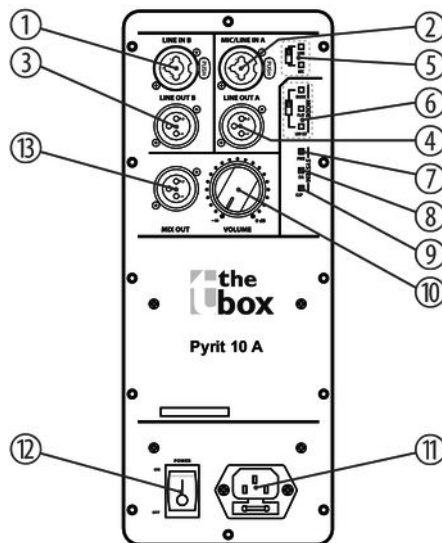
Balanced wiring (jack plug, stereo):

1 (tip)	Positive signal (+)
2 (ring)	Negative signal (-)
3 (sleeve)	Ground

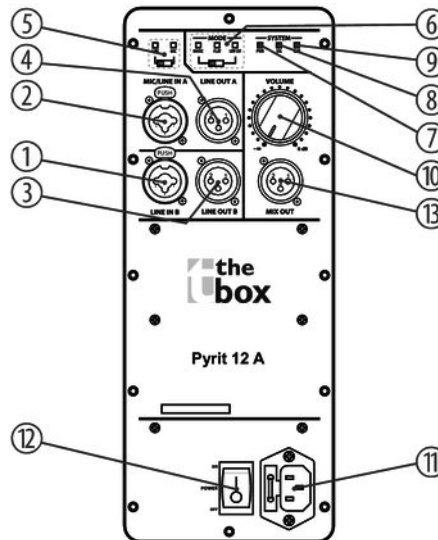
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5 Connections and operating elements

Rear panel Pyrit 10A

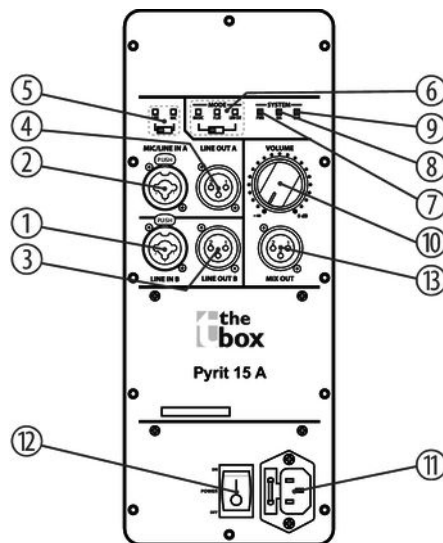


Rear panel Pyrit 12A



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Rear panel Pyrit 15A



1	LINE IN B Line signal input, designed as XLR / 1/4" jack combo socket.
2	MIC/LINE IN A Balanced microphone / line signal input, designed as XLR / 1/4" jack combo socket.
3	LINE OUT B Line signal output, designed as XLR panel plug.
4	LINE OUT A Line signal output, designed as XLR panel plug.
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 operating mode selection: MUSIC, FLAT, LOW CUT . LEDs indicate the selected mode. Before you change the mode, please turn off the unit. This will avoid damages.
7	LED PWR Indicates that operating voltage is present.
8	LED SIG Indicates that the input signal is present.
9	LED CLIP Indicates overload (clipping). In this case, the level of the line input signal is too high.
10	VOLUME Volume control.
11	Connection for the power supply IEC chassis plug with fuse holder for the power supply.

12	POWER ON/OFF Use this switch (power switch) to turn the unit on and off.
13	MIX OUT Line signal output (e. g. for a mixer). 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	2-way full-range powered speaker box	2-way full-range powered speaker box	2-way full-range powered speaker box
Speaker	1 × 10" woofer	1 × 12" woofer	1 × 15" woofer
	Titan compression driver for 1 × 1.4-inch tweeter	Titan compression driver for 1 × 1.7-inch tweeter	Titan compression driver for 1 × 1.7-inch tweeter
Input connections	2 × XLR / 1/4" jack combo sockets	2 × XLR / 1/4" jack combo sockets	2 × XLR / 1/4" jack combo sockets
	Voltage supply		
	IEC chassis plug C14	IEC chassis plug C14	IEC chassis plug C14
Input impedance	20 kΩ (balanced), 10 kΩ (unbalanced)	20 kΩ (balanced), 10 kΩ (unbalanced)	20 kΩ (balanced), 10 kΩ (unbalanced)
Output connections	3 × XLR panel plug	3 × XLR panel plug	3 × XLR panel plug

	Pyrit 10A, item no. 299659	Pyrit 12A, item no. 299658	Pyrit 15A, item no. 299657
Output power	RMS: 250 W Peak: 1000 W	RMS: 300 W Peak: 1200 W	RMS: 350 W Peak: 1400 W
Frequency range	55 Hz... 20 kHz, -3 dB	50 Hz... 20 kHz, -3 dB	45 Hz ... 20 kHz, -3 dB
Sound pressure level	122 dB / 1 m (max.)	127 dB / 1 m (max.)	128 dB / 1 m (max.)
Sensitivity (1 W / 1 m)	93 dB	97 dB	97 dB
Dispersion angle (H × V)	90° × 60°	90° × 60°	90° × 60°
Operating supply voltage	230 V ~ 50 Hz	230 V ~ 50 Hz	230 V ~ 50 Hz
Dimensions (W × H × D)	300 mm × 525 mm × 295 mm	368 mm × 630 mm × 349 mm	460 mm × 780 mm × 396 mm
Fuse	5 mm × 20 mm, 2,5 A, 250 V, slow-blow	5 mm × 20 mm, 5 A, 250 V, slow-blow	5 mm × 20 mm, 5 A, 250 V, slow-blow
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) in its currently valid version. 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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