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Active Speaker

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Table of contents

| 5 |
|----|
| 5 |
| 7 |
| 10 |
| 11 |
| 12 |
| 13 |
| 15 |
| 19 |
| 20 |
| |



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 <u>www.thomann.de</u>.

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 |
| A | Warning – high-voltage. |
| <u>^</u> | 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 knobs) that children could play with.



DANGER!

Danger to life due to electric current!

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 when covers, safety equipment or optical components are missing or damaged.



DANGER!

Danger to life due to electric current!

A short circuit could lead to a fire hazard and risk of death. Always use proper ready-made insulated triple-core mains cable with a safety plug. Do not modify the mains cable or the plug. In case of isolation damage, disconnect immediately the power supply and arrange repair. If in doubt, seek advice from a qualified electrician.



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 the heavy weight of the product

The product 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 product.



NOTICE!

Risk of fire due to covered vents and neighbouring heat sources!

If the vents of the device are covered or the device is operated in the immediate vicinity of other heat sources, the device can overheat and burst into flames. Never cover the device or the vents. Do not install the device in the immediate vicinity of other heat sources. Never operate the device in the immediate vicinity of naked flames.

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!

Damage to the device due to high voltages!

The device can be damaged if it is operated with the incorrect voltage or if high voltage peaks occur. In the worst case, excess voltages can also cause a risk of injury and fires. Make sure that the voltage specification on the device matches the local power grid before plugging in the device. Only operate the device from professionally installed mains sockets that are protected by a residual current circuit breaker (FI). Ensure that the power cord plug is easily accessible at all times if it is the only device to safely disconnect the device from the mains supply. As a precaution, disconnect the device from the power grid when storms are approaching or it the device will not be used for a longer period.

NOTICE!

Risk of fire due to installation of a wrong fuse!

Using fuses of a different type than compatible with the device may cause a fire and seriously damage the device. Only use fuses of the same type. Observe the labelling on the device casing and the information in the "Technical data" chapter.

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

The device is characterised by the following features:

- 15-inch woofer
- Class D amplifier
- Built-in sound processor
- Connection options: XLR connections for signal in and outputs (L+R, and crossover)
- Ground lift, shape and phase switches
- Adjustable low-pass filter
- Pole stand flange (36 mm)
- Two carrying handles
- Birch plywood housing with felt cover
- Black textured paint
- 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.

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.



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.

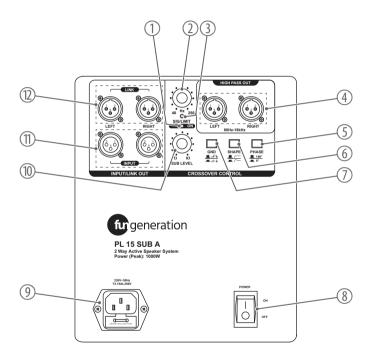
4.1 Tips on handling speakers

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.

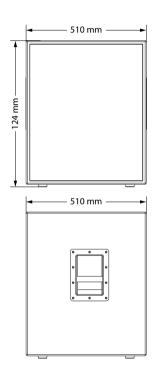
Connections and controls



Connections and controls

Power LED. Indicates that a power supply is present. 2 [Hz] | Control for adjusting the marginal frequency (40 Hz...250 Hz) of the low-pass filter [SIG/LIMIT] | Limit LED (blue), Indicates overload. In this case, the level of the line input signal is too high. 4 [HIGH PASS OUT] | Balanced line signal outputs for signals above the cut-off frequency, designed as XLR panel plug, 3-pin [PHASE] This switch allows you to shift the phase position of the subwoofer signal by 180° if necessary. This avoids unwanted cancellation effects in combination with other speakers. 6 [SHAPE] | Use this switch to change the sound characteristic (not pressed: linear; pressed: bass boost) [GND] If hum is caused by a ground loop, you can use this switch to disconnect the connection between the earth pin of the device and the signal ground of the device. [POWER ON/OFF] | Mains switch. Turns the device on and off. [230V~50Hz] | Rubber panel plug for the power supply with fuse holder [SUB LEVEL] | Control for adjusting the volume [INPUT] | Balanced line signal inputs, designed as XLR panel sockets, 3-pin 12 [LINK] | Balanced parallel signal outputs, designed as XLR panel plugs, 3-pin

Technical specifications 6



| System | Active 2-way speaker | | |
|-----------------------|----------------------|--|--|
| Amplifier class | D | | |
| Configuration | Woofer | 1×15 -inch speaker (ferrite) with 3-inch voice coil | |
| Input connections | Power supply | $1 \times \text{rubber panel plug C14}$ | |
| | Line | 2 × XLR panel socket, 3-pin (balanced) | |
| Input impedance | 10 kΩ | | |
| Output connections | Link | $2 \times XLR$ panel plug, 3-pin (balanced) | |
| | Crossover | 2 × XLR panel plug, 3-pin (balanced) | |
| Frequency range | 40 Hz250 Hz, –10 dB | | |
| Crossover frequency | 250 Hz | | |
| Output power | RMS: 350 W | | |
| | Peak: 4000 W | | |
| Sensitivity (1 W/1 m) | 95 dB SPL | | |
| Rated impedance | 4 Ω | | |

| Max. sound pressure level | 125 dB SPL | | |
|--------------------------------------|---|-------------------------|--|
| Max. short-term sound pressure level | 128 dB SPL | | |
| Power consumption | 402 W | | |
| Inrush current | 8 A, 8/20 μs | | |
| Supply voltage | 230 V ∼ 50 Hz | | |
| Fuse | 5 mm \times 20 mm, 3.15 A, 250 V, slow blow | | |
| Dimensions (W \times H \times D) | 510 mm × 620 mm × 510 mm | | |
| Weight | 30 kg | | |
| Ambient conditions | Temperature range | 0 °C40 °C | |
| | Relative humidity | 20%80% (non-condensing) | |

Further information

| Design | Bass reflex |
|-------------------------------|--|
| Colour | Black |
| Stand flange | 36 mm |
| Remote control | No |
| High cut | Adjustable |
| Casters | No |
| Multi-channel power amplifier | No |
| Protective cover | Optionally available (item no. 512857) |

Frequency response



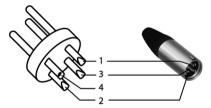
Plug and connection assignment

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!

XLR plug (balanced)



| 1 | Ground, shielding |
|---|------------------------------------|
| 2 | Signal (in phase, +) |
| 3 | Signal (out of phase, –) |
| 4 | Shielding on plug housing (option) |

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.