

**the**  
**box** **pro**

Achat 404PAM

battery-powered  
loudspeaker

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

25.01.2017, ID: 274786

## Table of contents

|          |   |           |
|----------|---|-----------|
| <b>1</b> | <b>General notes</b> .....                      | <b>4</b>  |
| <b>2</b> | <b>Safety instructions</b> .....                | <b>6</b>  |
| <b>3</b> | <b>Features</b> .....                           | <b>10</b> |
| <b>4</b> | <b>Installation and starting up</b> .....       | <b>11</b> |
|          | 4.1 Dealing with lithium batteries.....         | 13        |
| <b>5</b> | <b>Connections and operating elements</b> ..... | <b>15</b> |
| <b>6</b> | <b>Technical specifications</b> .....           | <b>20</b> |
| <b>7</b> | <b>Plug and connection assignments</b> .....    | <b>21</b> |
| <b>8</b> | <b>Protecting the environment</b> .....         | <b>27</b> |


# 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, include the manual for the next owner.

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  |
|---|--|
| <b>DANGER!</b>  | 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.        |
| <b>WARNING!</b>   | 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.           |
| <b>CAUTION!</b>   | This combination of symbol and signal word indicates a possible dangerous situation that can result in minor injury if it is not avoided.                      |
| <b>NOTICE!</b>  | 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 – 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.



**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.



**WARNING!**

**Incorrect handling of lithium batteries can result in injury**

In the event of a short circuit, overheating or mechanical damage, lithium batteries can cause severe injuries.

Follow the advice on the correct handling of lithium batteries in the present section.



### **NOTICE!**

#### **External power supply**

The device is powered by an external power supply. Before connecting the external power supply, 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 the user.

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





**NOTICE!**

**Possible damage due to incorrect storage**

Deep discharge can cause batteries to become permanently damaged or lose some of their capacity.

Before prolonged rest periods, charge the batteries to around 50 % of their capacity and then switch the equipment off. Store the equipment at a temperature between 10 °C and 32 °C in as dry an environment as possible. During extended storage periods, charge the batteries to 50 % approximately every three months.

### 3 Features

Special features of the device:

- Inputs: XLR/1/4" combi socket, RCA sockets, 1/8" socket
- Output: 12 V power supply for wireless systems
- DC cable included (item number 323989)
- 4 × 4" neodym woofer, 1" compression driver
- Built-in rechargeable battery with lithium/manganese technology providing long operation time and very low self-discharge
- Volume, treble and bass control
- Built-in small mixer with EQ and presets for speech and music
- Black textured coating
- Cabinet is ready to host a 9.5" wireless system
- Tripod mounting thread

## 4 Installation and starting up

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.



### **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.

### **Connection of a wireless-system.**

The device is prepared for the connection of a wireless-receiver. The 9,5" receiver can be stored in the front part of the housing flap and be secured with the hook-pile tape. Connect the 12-V-power supply output (4) of the box with the corresponding input of the wireless-receiver and the signal input (5) of the box with signal output of the wireless-receiver (see also ↪ *Chapter 5 'Connections and operating elements' on page 15*).

### **Operating supply voltage**

You can also operate the device independent of the mains power supply via the two built-in lithium-mangan-batteries. When the external mains power supply is connected, the battery is charged during operation.

## 4.1 Dealing with lithium batteries



### **WARNING!**

#### **Incorrect handling of lithium batteries can result in injury**

In the event of a short circuit, overheating or mechanical damage, lithium batteries can cause severe injuries.

Follow the advice on the correct handling of lithium batteries in the present section.

When handled correctly and appropriately lithium batteries pose no risk.

Store lithium batteries in a cool, dry place, ideally in the original packaging.

Store lithium batteries away from heat sources (e.g. radiators or sunlight). Lithium batteries are hermetically sealed. Never attempt to open a lithium battery.

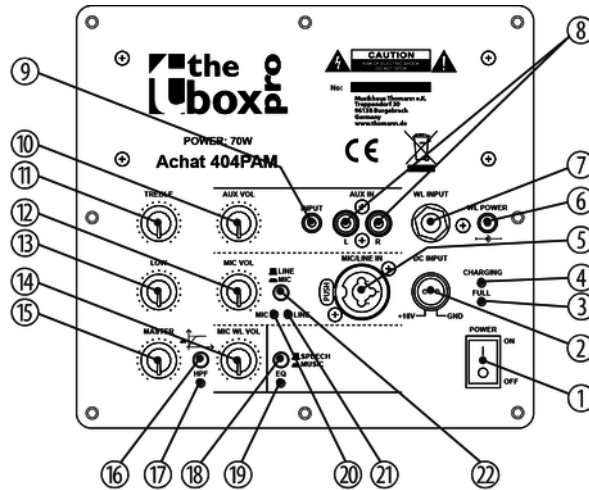
If the battery housing is damaged small amounts of the electrolyte may leak out. If this should happen, seal the lithium battery in airtight packaging and wipe up the traces of electrolyte using absorbent paper towels. You must wear protective rubber gloves when doing so. Clean your hands and the affected surface thoroughly with cold water.

Never attempt to recharge non-rechargeable lithium batteries. When charging lithium batteries you must use a suitable charging device intended for the purpose.

Before disposing of the device remove the lithium batteries. Protect used lithium batteries against potential short circuits, e.g. by covering the poles with adhesive tape.

Only use powder extinguishers or other suitable extinguishing agents to extinguish a burning lithium battery.

## 5 Connections and operating elements



Achat 404PAM

|   |   |
|---|---|
| 1 | <b>POWER</b><br>Main switch to turn the unit on and off.  |
| 2 | <b>DC INPUT</b><br>Connection socket for the external 18 V power supply during mains operation or for charging the built-in battery.  |
| 3 | <b>FULL</b><br>(Green) LED.<br>This LED lights in normal operation when the charging capacity of the built-in battery is sufficient for correct operation. Charge the built-in battery when the LED goes out. |
| 4 | <b>CHARGING</b><br>(Red) LED.<br>This LED lights during charging and goes out when the built-in LED is fully charged.   |
| 5 | <b>MIC/LINE IN</b><br>XLR/1/4" combi socket as signal input. To toggle the sensitivity use the LINE/MIC switch (20).  |





|    |  |
|----|--|
| 6  | <b>WL POWER</b><br>Connection socket for the power supply (12 V) of a wireless system.   |
| 7  | <b>WL INPUT</b><br>Use this 1/4" socket as signal input from the wireless system.  |
| 8  | <b>AUX IN</b><br>RCA jacks as additional left and right channel signal inputs. The signals of both channels are internally mixed into a mono signal. |
| 9  | <b>INPUT</b><br>1/8" input to connect other signal sources, e.g. an MP3 player.  |
| 10 | <b>AUX VOL</b><br>Volume control for the AUX input (6) signal.   |
| 11 | <b>TREBLE</b><br>Control to increase or attenuate the high frequencies.  |
| 12 | <b>MIC VOL</b><br>Volume control for the MIC/LINE input (3) signal.  |

|    |  |
|----|--|
| 13 | <b>LOW</b><br>Control to increase or attenuate the low frequencies.                                    |
| 14 | <b>MIC WL VOL</b><br>Volume control for the WL input (5) signal.                                       |
| 15 | <b>MASTER</b><br>Overall volume control.   |
| 16 | <b>HPF</b><br>Switchable high-pass filter (140 Hz) to eliminate unwanted hum and rumble.               |
| 17 | The LED lights up when the high-pass filter is switched on.  |
| 18 | <b>SPEECH/MUSIC</b><br>Toggles the built-in equalizer between the settings 'SPEECH' and 'MUSIC'.       |
| 19 | <b>EQ</b><br>The LED lights up when the switch for the built-in equalizer (16) is in 'MUSIC' position. |

|    |  |
|----|--|
| 20 | <b>MIC</b><br>The LED lights up when the switch for the input sensitivity (20) is in 'MIC' position.   |
| 21 | <b>LINE</b><br>The LED lights up when the switch for the input sensitivity (20) is in 'LINE' position. |
| 22 | <b>LINE/MIC</b><br>Toggle switch for the input sensitivity of the 'MIC/LINE' input (3).                |

## 6 Technical specifications

|                                     |  |
|-------------------------------------|--|
| Output power                        | 70 W (RMS)   |
| Maximum sound pressure level:       | 118 dB   |
| Frequency range                     | 70 Hz ... 20 kHz   |
| Dispersion angle (H × V)            | 90° × 60°  |
| Input voltage                       | DC18 V  |
| Runtime in battery mode             | 11 h   |
| Output voltage for wireless-systems | DC12 V  |
| Dimensions (W × H × D)              | 260 mm × 270 mm × 445 mm   |
| Weight                              | 8.5 kg   |

## 7 Plug and connection assignments

### 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!

### Balanced and unbalanced transmission

Unbalanced transmission is mainly used in semi-professional environment and in hifi use. Instrument cables with two conductors (one core plus shielding) are typical representatives of the unbalanced transmission. One conductor is ground and shielding while the signal is transmitted through the core.

Unbalanced transmission is susceptible to electromagnetic interference, especially at low levels, such as microphone signals and when using long cables.

In a professional environment, therefore, the balanced transmission is preferred, because this enables an undisturbed transmission of signals over long distances. In addition to the conductors 'Ground' and 'Signal', in a balanced transmission a second core is added. This also transfers the signal, but phase-shifted by 180°.

Since the interference affects both cores equally, by subtracting the phase-shifted signals, the interfering signal is completely neutralized. The result is a pure signal without any noise interference.

### 1/4" TS phone plug (mono, unbalanced)



|   |                   |
|---|-------------------|
| 1 | Signal            |
| 2 | Ground, shielding |

### 1/4" TRS phone plug (mono, balanced)



|   |                          |
|---|--------------------------|
| 1 | Signal (in phase, +)     |
| 2 | Signal (out of phase, -) |
| 3 | Ground                   |

**1/4" TRS phone plug (stereo, unbalanced)**



|   |                |
|---|----------------|
| 1 | Signal (left)  |
| 2 | Signal (right) |
| 3 | Ground         |

**1/4" TS phone plug (mono, unbalanced)**



|   |        |
|---|--------|
| 1 | Signal |
| 2 | Ground |

## 3.5 mm TRS phone plug (mono, balanced)



|   |                          |
|---|--------------------------|
| 1 | Signal (in phase, +)     |
| 2 | Signal (out of phase, -) |
| 3 | Ground                   |

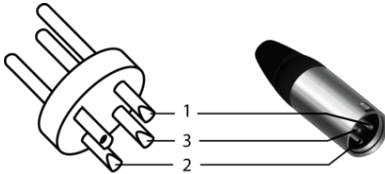
## Three-pole 1/8" mini phone jack (stereo, unbalanced)



|   |                   |
|---|-------------------|
| 1 | Signal (left)     |
| 2 | Signal (right)    |
| 3 | Ground, shielding |

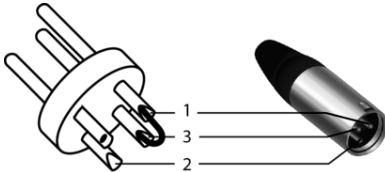


**XLR plug (balanced)**



|   |                          |
|---|--------------------------|
| 1 | Ground, shielding        |
| 2 | Signal (in phase, +)     |
| 3 | Signal (out of phase, -) |

**XLR plug (unbalanced)**



|   |                   |
|---|-------------------|
| 1 | Ground, shielding |
| 2 | Signal            |
| 3 | Bridged to pin 1  |

### RCA connection



Drawing and table indicate the pin assignment of an RCA plug.

|   |                   |
|---|-------------------|
| 1 | Signal            |
| 2 | Ground, shielding |

## 8 Protecting the environment

### Disposal of the packaging material



For the 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 batteries



Batteries do contain some hazardous chemicals so they should not be thrown away with the normal household waste. They should be returned to the manufacturer for disposal or recycled elsewhere in accordance with your local regulations.

Remove lithium batteries from the device before disposal. Protect used lithium batteries against short circuit, for example by taping the poles.

### 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.

Achat 404PAM





Musikhaus Thomann · Hans-Thomann-Straße 1 · 96138 Burgebrach · Germany · [www.thomann.de](http://www.thomann.de)