



Achat 104 A

active full-range speaker

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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, 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  |
|---------------|--|
| 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 signs | Type of danger            |
|---------------|---------------------------|
|               | 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.



### 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

- Active mini speaker with 4" woofers and 1" tweeter
- Including L-bracket, M6 thread
- Optional wall mount available
- Black textured paint
  - Power saving mode
    When the box receives no signal for 60 minutes, it switches to standby mode. As soon as the unit receives a signal, it switches automatically back to normal mode.

# 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.





### 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

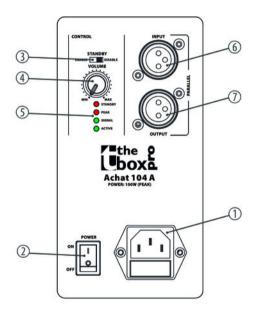
We recommend you to set up the speakers in a way, that the sound signals can reach the audience unobstructedly. It will often be helpful to mount the speakers on tripods. Thus, the sound will be evenly spread with maximum range throughout the audience area.

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.



# 5 Connections and operating elements



| 1 | Connection for the power supply   |
|---|---|
|   | IEC chassis plug with fuse holder for the power supply.   |
|   | If the fuse blows, replace it with a new fuse of the same type. You must first disconnect the device from the power supply.   |
| 2 | [ POWER ON/OFF]   |
|   | Use this switch (power switch) to turn the unit on and off.   |
| 3 | Slide switch [DISABLE/ENABLE]   |
|   | Slide switch to enable or disable the power saving mode.  |
|   | If the device is in power save mode and receives no signal for 60 minutes, it switches to standby mode. As soon as the unit receives a signal, it switches automatically back to normal mode. |
| 4 | [VOLUME]  |
|   | Volume control.   |



5 LED [STANDBY]

Standby operation. This LED lights up when the box - on activated power save mode - switches to standby mode and turns off when the box is switched back to normal operation.

LED [PEAK]

Indicates overload. If the LED flickers or is lit, the input signal level is too high.

LED [SIGNAL]

Indicates that an input signal is present.

LED [ACTIVE]

Power indicator. This LED lights up continuously in normal operation and turns off when the box - on activated power save mode - switches to standby mode.

6 [INPUT]

Line signal input, designed as XLR chassis socket.

7 [OUTPUT]

Line output for connecting further speakers, designed as XLR chassis plug.



# 6 Technical specifications

| System                               | Active 2-way full-range box with built-in crossover        |
|--------------------------------------|--|
| Speakers                             | $1 \times 4$ " woofer, $1 \times 1$ " textile dome tweeter |
| Output power                         | 50 W (RMS)   |
| Impedance                            | 8 Ω  |
| Sound pressure level                 | 109 dB max.  |
| Frequency response                   | 100 Hz20 kHz   |
| Dispersion angle $(H \times V)$      | 90° × 90°  |
| Dimensions (W $\times$ D $\times$ H) | 144 mm × 146 mm × 214 mm                                   |
| Weight                               | 2.5 kg   |



# 7 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!

# 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.

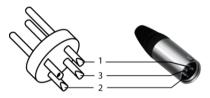
Unbalanced transmission is susceptible to electromagnetic interference, especially at low levels, such as microphone signals and when using long cables.

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°.



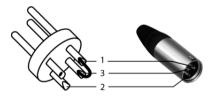
Since the interference affects both cores equally, by subtracting the phase-shifted signals, the interfering signal is completely neutralized. The result is a pure signal without any noise interference.

## 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  |



# 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.







