



**the  
box**

RA10  
active  
full-range speaker

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## 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</b> .....	<b>11</b>
	4.1 Tips on handling speakers.....	12
<b>5</b>	<b>Connections and operating elements</b> .....	<b>13</b>
	5.1 Pin assignment.....	18
<b>6</b>	<b>Application examples</b> .....	<b>19</b>
<b>7</b>	<b>Technical specifications</b> .....	<b>24</b>
<b>8</b>	<b>Protecting the environment</b> .....	<b>26</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 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
<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>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 – high-voltage.
	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

Special features of this active full-range speaker:

- Coaxial full-range speaker
- 1 × 10" woofer, 1 × 1" tweeter
- Connections: NL4 output (lockable), 1/4" phone sockets for LINE IN/OUT, AUX
- Output power 100 W
- Dispersion pattern 100° × 100°
- Selectable input sensitivity Line/Mic
- Multi-function housing with tripod flange and carrying handle
- Standby feature

## 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.



### **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.

### 4.1 Tips on handling speakers

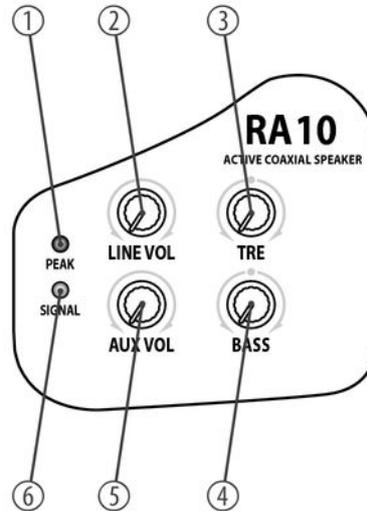
We recommend you to set up the speakers in a way, that the sound signals can reach the audience unobstructedly. It will often be helpful to mount the speakers on tripods. Thus, the sound will be evenly spread with maximum range throughout the audience area.

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

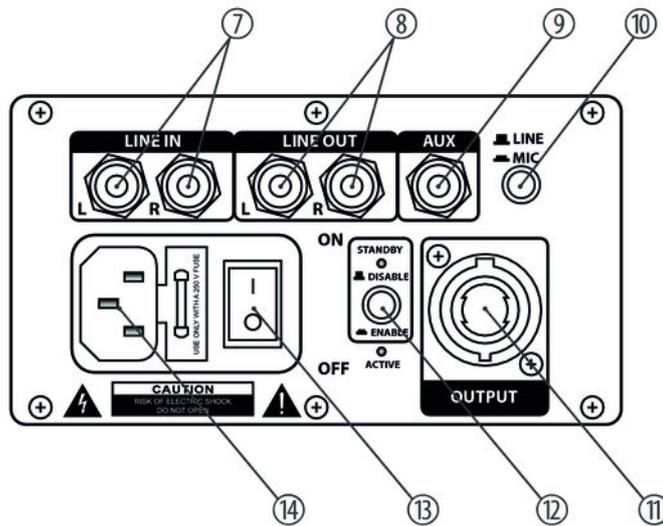
### Front panel



RA10

1	<b>LED PEAK</b> Indicates overload. If the LED flickers or lights up, the input level is too high.
2	<b>LINE VOL</b> Volume control for the LINE input. Turn this knob clockwise to increase the volume. Turn it counter-clockwise to reduce it.
3	<b>TRE</b> Treble control. Turn this knob clockwise to increase the high frequencies. Turn it counter-clockwise to reduce them.
4	<b>BASS</b> Bass control. Turn this knob clockwise to increase the low frequencies. Turn it counter-clockwise to reduce them.
5	<b>AUX VOL</b> Volume control for the AUX input. Turn this knob clockwise to increase the volume. Turn it counter-clockwise to reduce it.
6	<b>LED SIGNAL</b> Indicates an incoming input signal.

Rear panel



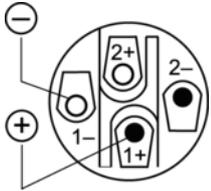
RA10

7	<b>LINE IN</b> 1/4" phone input sockets for line signals.
8	<b>LINE OUT</b> 1/4" phone output sockets for line signals.
9	<b>AUX</b> 1/4" phone input sockets for AUX signals.
10	<b>LINE/MIC</b> Push button to select the input sensitivity of the device (line or microphone level).
11	<b>OUTPUT</b> NL4 mounting connector (1+/1-) to connect another passive speaker.

12	<p><b>STANDBY</b></p> <p>Push button to enable or disable the energy saving mode.</p> <p>When the box receives no signal for 60 minutes, it switches to standby mode. When it receives a signal again, it automatically switches back to normal mode.</p> <p><b>LED ACTIVE</b></p> <p>Power indicator LED. This LED is permanently on in normal mode. It goes off when the energy-saving mode is enabled and the box enters the standby mode.</p> <p><b>LED STANDBY</b></p> <p>Standby mode. This LED lights up when the energy saving mode is enabled and the box enters the standby mode. It goes off again when the box switches back to normal.</p>
13	<p><b>ON / OFF</b></p> <p>Mains power switch to turn the device on or off.</p>
14	<p>IEC chassis connector with fuse holder for operating voltage supply.</p>

## 5.1 Pin assignment

### NL4 mounting connector for speaker connection



The drawing alongside shows the pin assignment of the lockable NL4 mounting connector (1+/1-).

### Phone plugs for signal in and outputs



Drawing and table indicate the pin assignment of a 1/4" TS phone plug to be used.

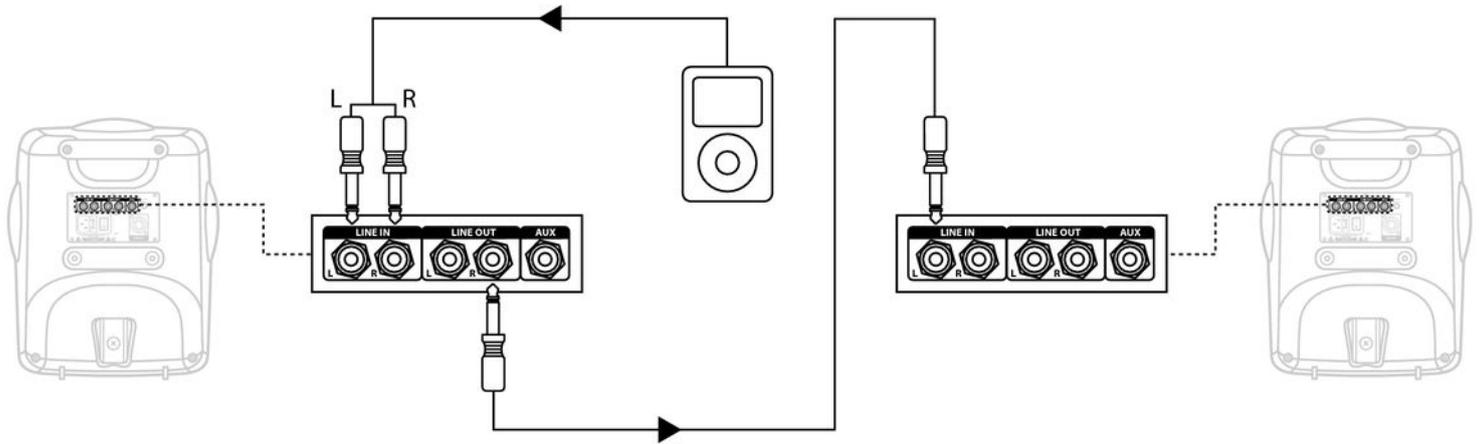
1	Signal
2	Ground

## 6 Application examples

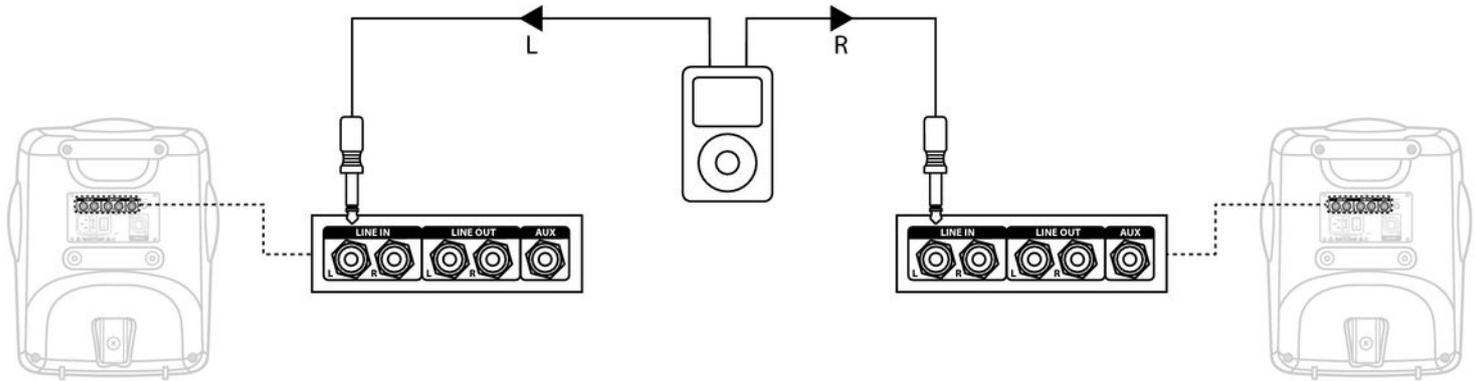


*If you have a second speaker for stereo playback, the input signal at the left LINE IN channel is reproduced by the RA10. The input signal from the right LINE IN channel is fed to the right LINE OUT and to the OUTPUT socket, respectively.*

**Line signal directly fed into the box, right channel looped through to second RA10**

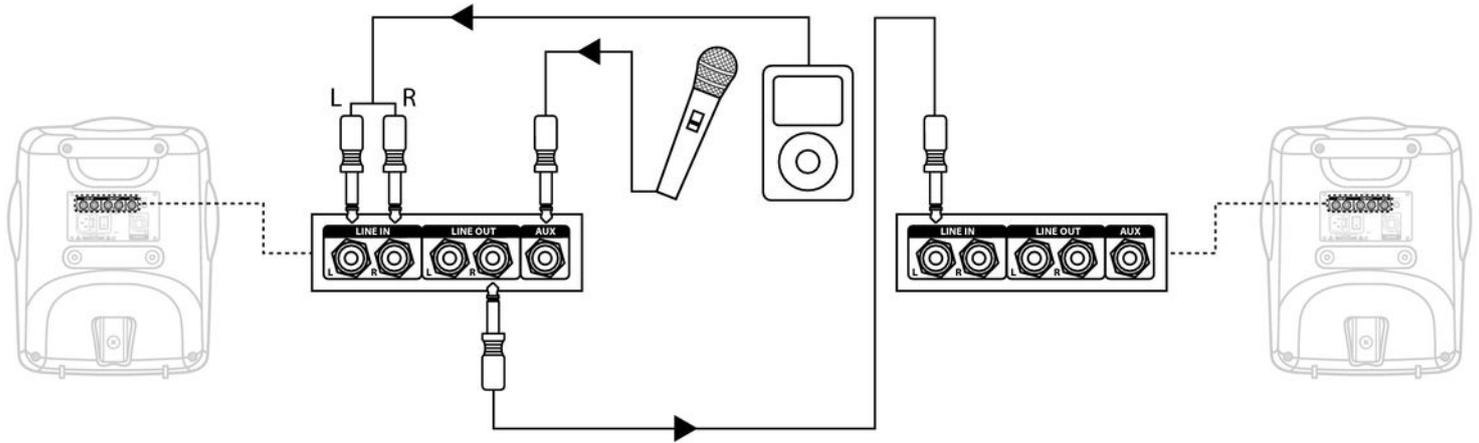


**Line signal from one source directly fed into right and left RA10**

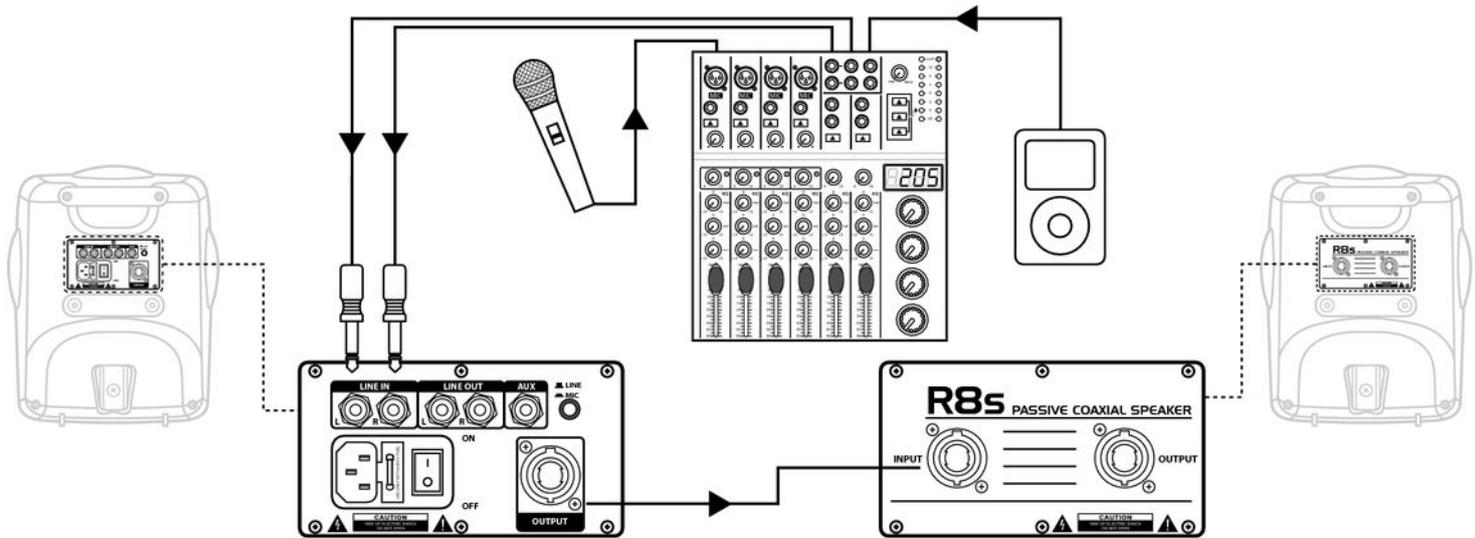


RA10

**Line and microphone signals directly fed into the box, right channel looped through to second RA10**



Line and microphone signals fed into the box though a mixer, right channel looped through to a second, passive speaker



## 7 Technical specifications

System	Active full-range speaker
Speakers	1 × 10" woofer, 1 × 1" tweeter
Connections	1/4" phone sockets, unbalanced (LINE IN, LINE OUT, AUX) Lockable NL4 socket (1+/1-)
Output power (RMS)	100 W
Max. power consumption	220 W
Frequency response	65 Hz ... 15 kHz
Dispersion pattern	100° × 100°
Max. sound pressure level	113 dB
Level adaptation	120 Hz: ±6 dB 6.3 kHz: ±12 dB
Operating voltage supply	AC 230 V ~ , 50 Hz

Housing	Multi-function plastic housing
Dimensions (W × H × D)	376 mm × 464 mm × 316 mm
Weight	12 kg

## 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.



