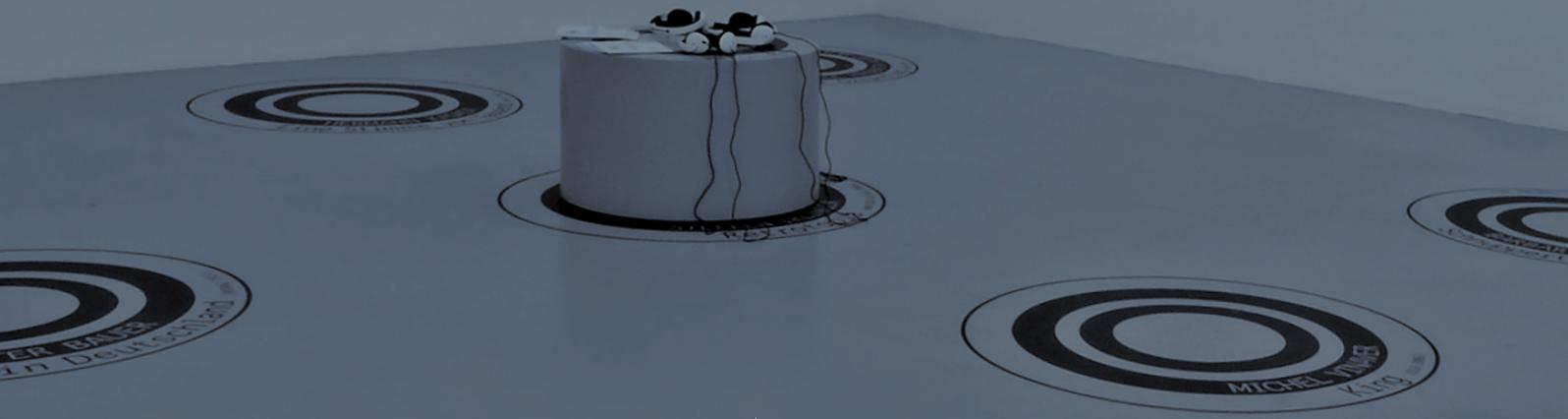




Operation Manual Directional Speakers RL 110 Series

► **rlseries**



pure listening 

Important Safety Information



CAUTION!

Service and repair work must only be carried out by qualified personnel. Do not open the case as there is a risk of electric shock. There are no controls or components inside the device that require you to open the case. If the case has to be opened by qualified personnel, make sure that the device is completely disconnected from the power supply.

The operating voltage must match the local power supply.



The device should be shielded from moisture and wet conditions. It must not be operated in rain or close to water, baths, washbasins, sinks, swimming pools or in damp environments. Do not place any objects filled with water such as vases, glasses or bottles on the device.

Avoid direct sunlight and do not install it in the direct vicinity of radiators or other heat sources. Upon sudden change of climatic conditions (e. g. transfer from a cold place to a warm room) water may condense inside the device, which may lead to malfunction or damage. Before switch-on wait until the amplifiers have reached room temperature.

Unplug the mains plug to protect the device during a thunderstorm or if it is going to be left unsupervised or unused for a longer period of time. This prevents the device being damaged by lightning strikes or voltage surges in the mains grid. Do not touch the case when the device is in use as it may heat up during operation. Make sure that the device is ventilated sufficiently.

Improper use will invalidate the warranty!

Disclaimer

LB is not liable for damage to speakers or other equipment caused by negligence or in cases where the product has been used for something other than its intended purpose. In particular, LB is not liable for lost earnings or other financial losses incurred by the purchaser. This limitation also applies to the personal liability of employees, representatives and agents.

These products meet the requirements of European Directive 2002/96/EC (WEEE) and 2002/95/EC (RoHS).

RL 110 | RL 110 A | RL 110 A-MP3 | RL 110 AX | RL 110 AX-MP3 | RL 110 PerZonic®



Content

Models 4

Accessories 4

Positioning and Assembly 5

Dimensions RL 110 Series 6

RL 110 7

- Technical Data / Back View 7

RL 110 A / RL 110 A-MP3 8

- Technical Data / Block Diagram 8
- Controls and Functions 9

RL 110 AX 10

- Technical Data / Block Diagram 10
- Controls and Functions 11

RL 110 AX-MP3 12

- Technical Data / Block Diagram 12
- Controls and Functions 13

RL 110 PerZonic® 14

- Technical Data / Block Diagram 14
- Controls and Functions 15



Further technical informations can be found
in the datasheets and on our website:
www.lb-lautsprecher.de/en/Directional-Speakers

Model

Version

| | | |
|----------------------------------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------|
| RL 110 White RL 110 Black | RAL 9016 RAL 9005 | Full-range directional speaker Passive, 8 ohms |
| RL 110 T White RL 110 T Black | RAL 9016 RAL 9005 | 100 V version, Power 2.5/5/10 watts |
| RL 110 A White RL 110 A Black | RAL 9016 RAL 9005 | Active directional speaker |
| RL 110 A-MP3 White RL 110 A-MP3 Black | RAL 9016 RAL 9005 | Active directional speaker with integrated MP3 player |
| RL 110 AX White RL 110 AX Black | RAL 9016 RAL 9005 | Active directional speaker with integrated motion sensor |
| RL 110 AX-MP3 White RL 110 AX-MP3 Black | RAL 9016 RAL 9005 | Active directional speaker with integrated motion sensor and MP3 player |
| RL 110 PerZonic® White RL 110 PerZonic® Black | RAL 9016 RAL 9005 | Active directional speaker with patented automatic volume control (depending on the ambient noise) |



Other colors and
versions on request.

Accessories

WH 110 White L-bracket for RL 110, with assembly plate, rotatable/pivotable,
incl. safety rope



WH 110 Black L-bracket for RL 110, with assembly plate, rotatable/pivotable,
incl. safety rope



SR 300 Stainless steel rope for pendant mounting, length 3 m,
thickness 1 mm, one side with loop

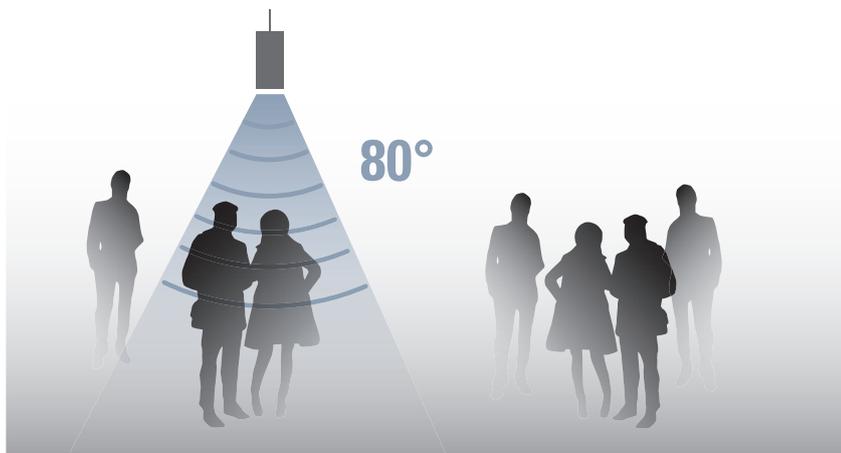


Positioning and Assembly of the Speakers

The directional speakers are usually mounted at a short distance from visitors in the listening zone. The models in the RL 110 series can either be hung from ceilings using a steel wire (e. g. the SR 300) or attached to walls or ceilings using the WH 110 bracket.

HANGING SPEAKERS FROM CEILINGS

To focus the sound as intensely as possible on listening zones, directional speakers should be hung in such a way that the lower edge of the cylinder is approximately 2.5 m from the floor. The SR 300 stainless steel rope can be used for this. (Please order separately).

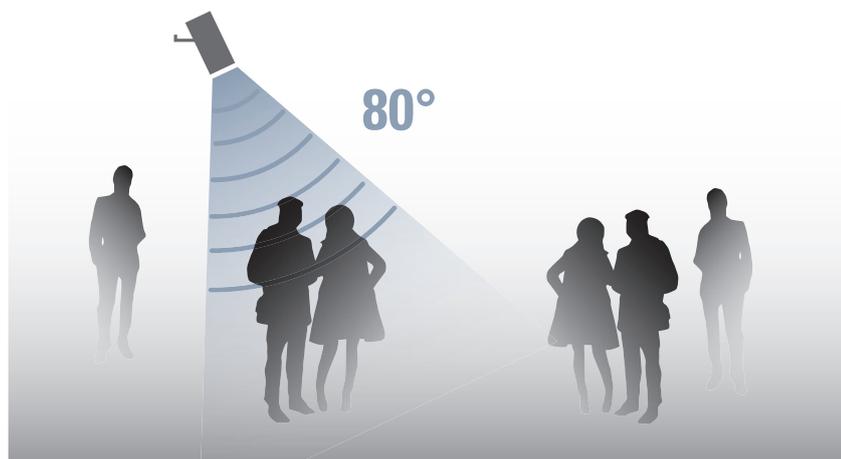


INFORMATION

On the basis of statutory provisions (BGV-C1 §7 „protection against falling objects“) the speakers should be saved in addition to the assembly with a wall-mount e. g. a steel rope securing against falling.

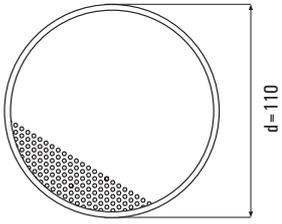
ATTACHING SPEAKERS TO WALLS OR CEILINGS

The WH 110 bracket can be used to mount and adjust the position of directional speakers on walls and ceilings. To do this, first attach the assembly plate and then screw in the L-shaped bracket. A safety wire is secured to the assembly plate and the speaker.

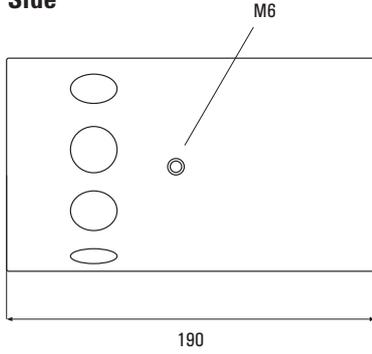


Dimensions RL Series

Front

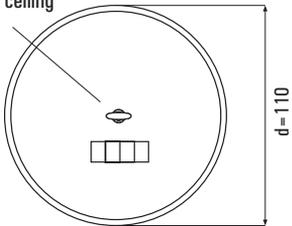


Side



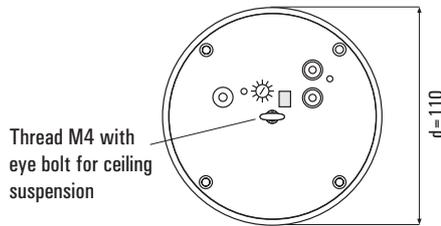
RL 110 Back Side

Thread M4 with eye bolt for ceiling suspension



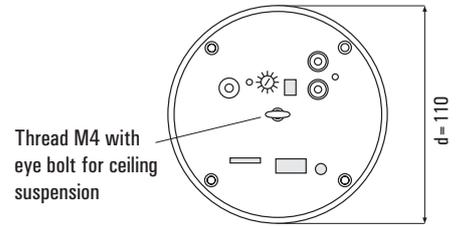
RL 110 A Back Side

Thread M4 with eye bolt for ceiling suspension



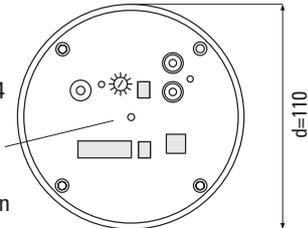
RL 110 A-MP3 Back Side

Thread M4 with eye bolt for ceiling suspension



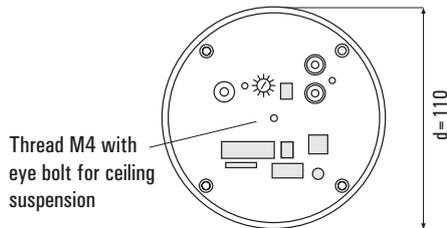
RL 110 AX Back Side

Thread M4 with eye bolt for ceiling suspension



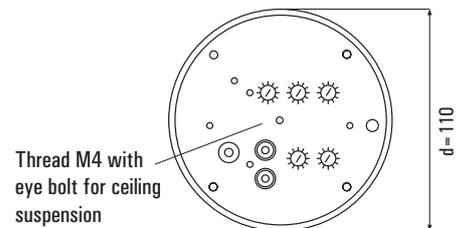
RL 110 AX-MP3 Back Side

Thread M4 with eye bolt for ceiling suspension



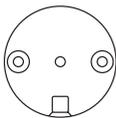
RL 110 PerZonic Back Side

Thread M4 with eye bolt for ceiling suspension

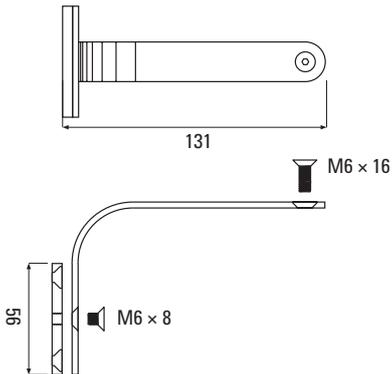
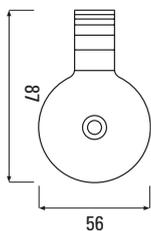


WH 110 Wall-Mount

Assembly Plate



L-Bracket



RL 110 Directional Speaker

The model RL 110 is a passive Speaker with an 8 ohms impedance.

The model RL 110 T is a version with 2.5/5/10 watts power for 100 V systems.

- Directional speaker with supercardioid pattern
- 80° nominal dispersion
- 3" full-range driver
- 8 ohm or 100 V versions
- Standard version: white/black

Technical Data

| | | | |
|-----------------|-------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------|
| Principle | Full-range directional speaker with supercardioid pattern, electronically corrected | Sound pressure | 83 dB (1W/1m), max. 96 dB, 100 V version: max. 93 dB |
| Components | 3" full-range driver | Nominal dispersion | 80° |
| Frequency range | 190 Hz – 19 kHz | Connectors | Screw-type terminals, pluggable |
| Impedance | 8 ohms | Dimensions | d = 110 mm, l = 190 mm |
| Power capacity | 20 watts RMS, 40 watts program 100 V version 10/5/2.5 watts | Weight | 1.0 kg |
| | | Fastening points | Suspension point at the rear, threaded insert M 6 for L-bracket on side |

Back View



RL 110 A / RL 110 A-MP3 Active Directional Speaker

The directional speaker RL 110 A is an active speaker with 20 watts power and automatic switch-on. A stereo-cinch input, Dip-switches for AUTO ON/STEADY ON and 150 Hz HP (high-pass filter), volume control, LED POWER ON and a connection for the external power supply are located on the rear. MP3 players and computers can be directly connected thanks to the high input sensitivity.

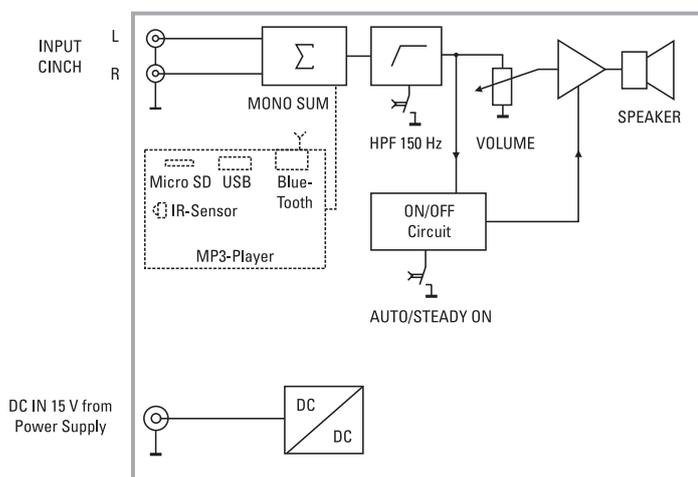
Additional the model RL 110 A-MP3 features an integrated MP3 player. The integrated MP3 player reports audio files from Micro SD Cards (Priority 1) or USB-Sticks (Priority 2). It automatically switches the signal sources. External MP3 players and computers can also directly connected thanks to the high input sensitivity.

- Active directional speaker
- Supercardioid pattern
- 80° nominal dispersion
- 3" full-range driver
- 20 watts amplifier power
- Stereo-cinch input
- Switchable high-pass filter (HPF) **Additional for RL 110 A-MP3**
- Auto ON/OFF
- Standard version: white/black
- **Additional for RL 110 A-MP3**
- Integrated MP3-Player

Technical Data

| | | | |
|----------------------|--------------------------------------------------------------------------------|------------------------------------|-----------------------------------------------------------------------------|
| Principle | Active full-range directional speaker with supercardioid pattern | Power supply | 230 V AC with plug-switch power supply (included in delivery) |
| Components | 3" full-range driver | Supply voltage | 90 – 240 V AC |
| Frequency range | 190 Hz – 19 kHz | Dimensions | d = 110 mm, l = 190 mm |
| Amplifier output | 20 watts | Weight | 1.4 kg |
| Maximum SPL | 95 dB (1 W @ 1m) | Fastening points | Suspension point at the rear, threaded insert M 6 for l-bracket on the side |
| Nominal dispersion | 80° | Additional for RL 110 A-MP3 | |
| Connectors | Input cinch stereo | MP3-Player | reports MP3- or WAV files from Micro-SD or USB |
| RL 110 A-MP3 | Operation parallel to the internal player | | Priority 1 = Micro-SD |
| Input sensitivity | - 6 dBu for full modulation, input-impedance 10 kohms | | Priority 2 = USB |
| Operational controls | Volume control, Dip-switches for AUTO ON/STEADY ON and 150 Hz HP, LED POWER ON | | |

Block Diagram



Controls and Functions

1 VOLUME

Volume control

2 POWER ON

The LED lights up, when the speaker is switched on.

3 DC IN 15V

Connect the enclosed plug-switch power supply. If using another power supply please observe polarity and voltage.

4 Dip-switch for HP and AUTO ON

4.1 High-pass filter (80 Hz/150 Hz).
We recommend 150 Hz for speech intelligibility.

4.2 AUTO ON / STEADY ON

The setting „AUTO ON“ will start the speaker as soon as the input gets an audiosignal. The speaker automatically switches to stand-by mode after 3 minutes without an signal. When the setting „STEADY ON“ is swichted, the speaker is permanently on.

5 LINE IN (MONO SUM)

Audio input for external signal sources: A stereo signal is added up internally.

The model RL 110 A-MP3 features an integrated MP3 player:
Befor using an SD card or USB stick, the speaker has to be swichted on, to read the medium at the first time. The player then starts automatically as soon as the speaker is connected.

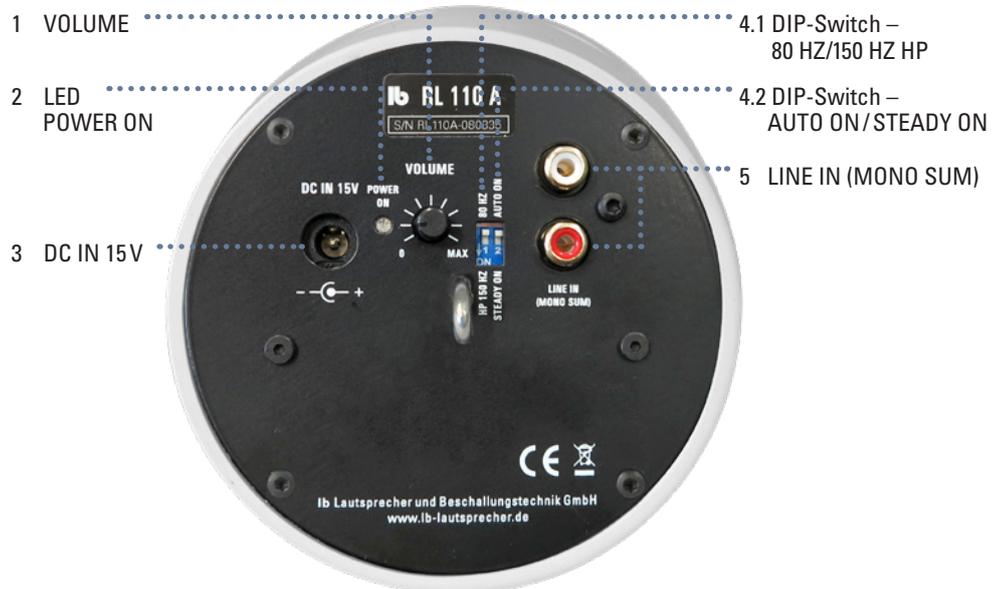
6 MICRO SD CARD

Card reader for sound files (Priority 1)

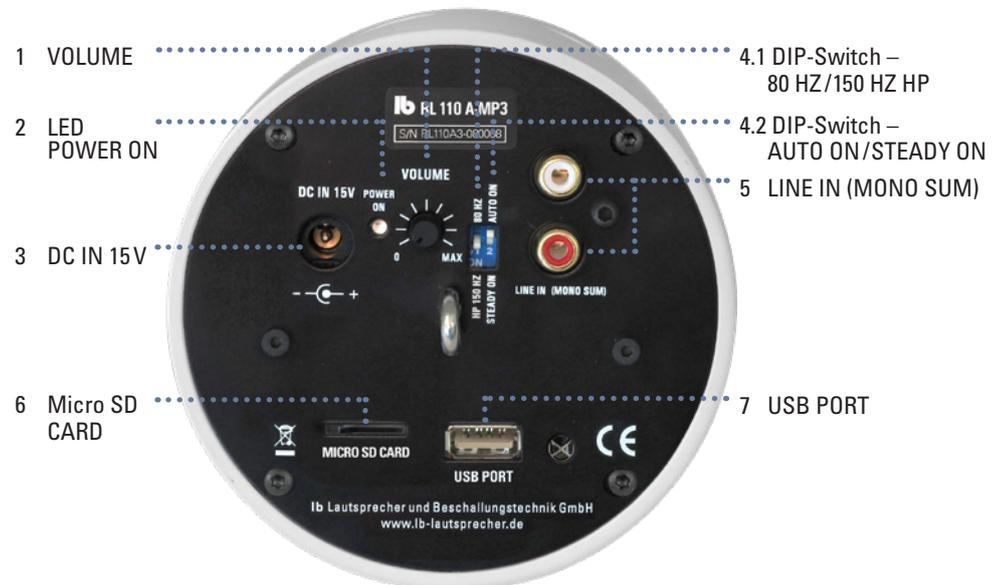
7 USB PORT

Port for USB sticks (Priority 2)

RL 110 A



RL 110 A-MP3



RL 110 AX Active Directional Speaker with Motion Sensor

The RL 110 AX model features an integrated motion sensor. It switches on automatically as soon as a person approaches it from the front, playing a sound file from an external source. An isolated contact is available for connecting an external media player. Four operating modes are available and playback time can be set between one and 1,024 seconds.

The integrated amplifier has 20 watts power and an automatic switch-on (AUTO ON/OFF). A stereo-cinch input, Dip-switches for AUTO ON/STEADY ON and 150 Hz HP (high-pass filter), volume control, LED POWER ON and a connection for the external power supply are located on the rear.

The RL 110 AX has four operating modes:

- **PLAY FILE ONCE:** The entire audio file is played and can only be restarted once it is finished.
- **EXTEND PLAY:** Speaker activity is extended every time movement is detected.
- **ONLY SPEAKER SWITCHED:** Speaker operating time is controlled by the sensor; the isolated contact is permanently closed.
- **CONTINUOUS:** Permanent operation

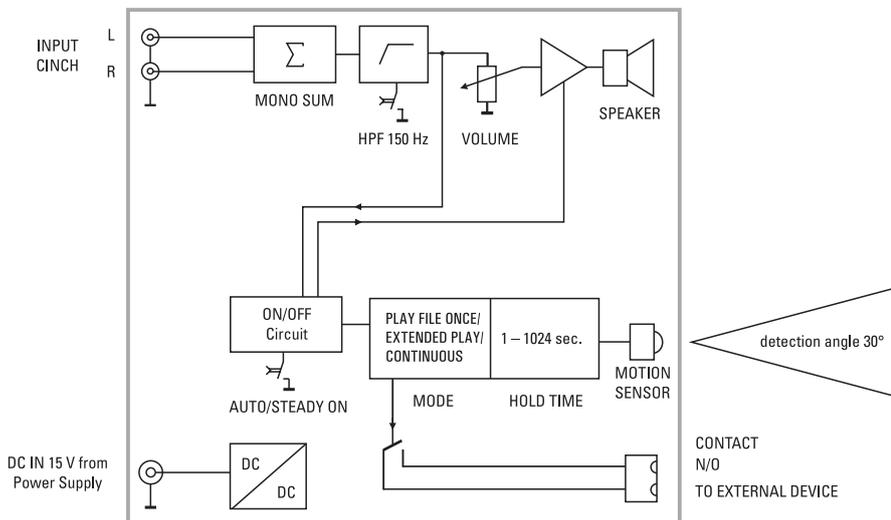
- Active directional speaker
- 30° motion sensor
- Switch for external media player
- Supercardioid pattern
- 3" full-range driver
- 80° nominal dispersion
- Stereo-cinch input
- 20 watts amplifier power
- Switchable high-pass filter
- Auto-ON/OFF
- Standard version: white/black

Technical Data

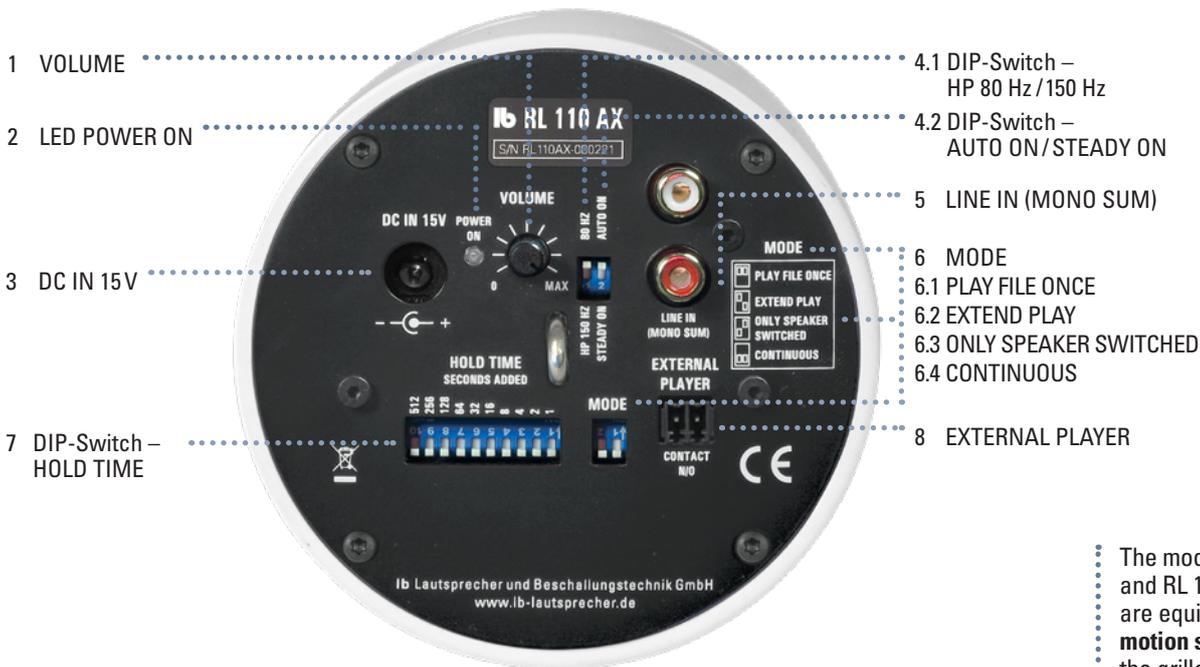
| | |
|--------------------|------------------------------------------------------------------------------------|
| Principle | Active directional speaker with integrated motion sensor and supercardioid pattern |
| Components | 3" full-range driver |
| Frequency range | 190 Hz – 19 kHz |
| Amplifier output | 20 watts |
| Maximum SPL | 95 dB (1W@1m) |
| Nominal dispersion | 80° |
| Connectors | Input cinch stereo |
| Input sensitivity | -6 dBu for full modulation, input-impedance 10 kohms |
| Main connections | 15 V DC (included in delivery) |

| | |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operational controls | Volume control, switch auto ON/ steady ON, switchable high-pass filter, LED power ON, Dip-switch for operating modes: PLAY FILE ONCE, EXTEND PLAY, ONLY SPEAKER SWITCHED, CONTINUOUS; Dip-switch to adjust delay (1 – 1024 sec.) |
| Power supply | 90 – 240 V AC |
| Dimensions | d = 110 mm, l = 190 mm |
| Weight | 1.4 kg |
| Fastening points | Suspension point at the rear, threaded inserts M 6 for L-bracket on the side |

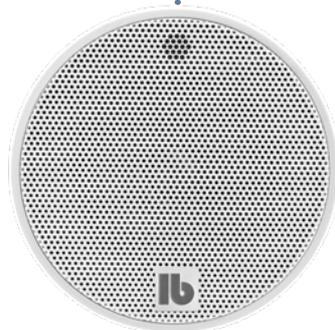
Block Diagram



Controls and Functions



The models RL 110 AX and RL 110 AX-MP3 (S.12) are equipped with an **motion sensor** behind the grille.



1 VOLUME

Volume control

2 POWER ON

The LED lights up, when the speaker is switched on.

3 DC IN 15 V

Connect the enclosed plug-switch power supply. If using another power supply please observe polarity and voltage.

4 Dip-switch for HP and AUTO ON

4.1 High-pass filter (80 Hz/150 Hz)

We recommend 150 Hz for speech intelligibility.

4.2 AUTO ON / STEADY ON

The setting "AUTO ON" will start the speaker as soon as the input gets an audiosignal. The speaker automatically switches to stand-by mode after 3 minutes without an signal. When the setting "STEADY ON" is switched, the speaker is permanently on.

The automatic switch-on function is irrelevant when using operating modes with motion sensor, the Dip-switch can be set to the "STEADY ON" position.

5 LINE IN (MONO SUM)

Audio input for external signal sources: A stereo signal is added up internally.

6 MODE – Setting of four operating modes

6.1 PLAY FILE ONCE

In the 'PLAY FILE ONCE' mode the speaker is activated by motion sensor and remains switched 'ON' until the setted hold time is completely expired. The speaker then can only get started again by motion sensor. The switch contact 'EXTERNAL PLAYER' (8) is closed as long as the speaker is active.

6.2 EXTEND PLAY

In the "EXTEND PLAY" mode the speaker is activated by motion sensor and remains switched 'ON' until the setted hold time is expired after the last detected movement. The switch contact 'EXTERNAL PLAYER' (8) is closed as long as the speaker is active.

6.3 ONLY SPEAKER SWITCHED

In the "ONLY SPEAKER SWITCHED" mode the speaker is activated by motion sensor and remains switched 'ON' until the setted hold time is expired after the last detected movement. The switch contact 'EXTERNAL PLAYER' is permanently closed.

6.4 CONTINUOUS

In the "CONTINUOUS" mode the motion sensor is disabled. The speaker plays the audio file continuously and the switch contact 'EXTERNAL PLAYER' (8) is closed. The automatic switch-on remains active.

7 HOLD TIME (SECONDS)

The playback time can be set with the dip-switches "HOLD TIME". The speaker switches back to stand-by mode when the setted hold time is expired. Every dip-switch has a fixed time and will be added to the constant ground time of 1 sec. Example: in order to receive a hold time of 25 sec., activate (ON) the dip-switches 4 (8 sec.) and 5 (16 sec.). The maximum playback time of 1,024 seconds can be set.

8 EXTERNAL PLAYER

With the potential-free switch contact "EXTERNAL PLAYER" an external media device can be controlled. The switch contact is a (N/O) contact, e. g. the external device should be programmed to playback at closed contact. The operating modes of the switch contact comply with the internal player (6).

RL 110 AX-MP3 Active Directional Speaker with integrated Motion Sensor and MP3 Player

The RL 110 AX-MP3 model features an integrated motion sensor. It switches on automatically as soon as a person approaches it from the front, playing a sound file either from an external source or an internal MP3 player. An isolated contact is available for connecting an external media player. Four operating modes are available and playback time can be set between one and 1,024 seconds.

The RL 110 AX has four operating modes:

- **PLAY FILE ONCE:** The entire audio file is played and can only be restarted once it is finished.
- **EXTEND PLAY:** Speaker activity is extended every time movement is detected.
- **ONLY SPEAKER SWITCHED:** Speaker operating time is controlled by the sensor; the isolated contact is permanently closed.
- **CONTINUOUS:** Permanent operation

The integrated amplifier has 20 watts power and an automatic switch-on (auto ON/OFF). A stereo-cinch input, Dip-switches for AUTO ON/STEADY ON and 150 Hz HP (high-pass filter), volume control, LED POWER ON and a connection for the external power supply are located on the rear. External MP3 players and computers can be also directly connected in addition to the internal MP3-Player.

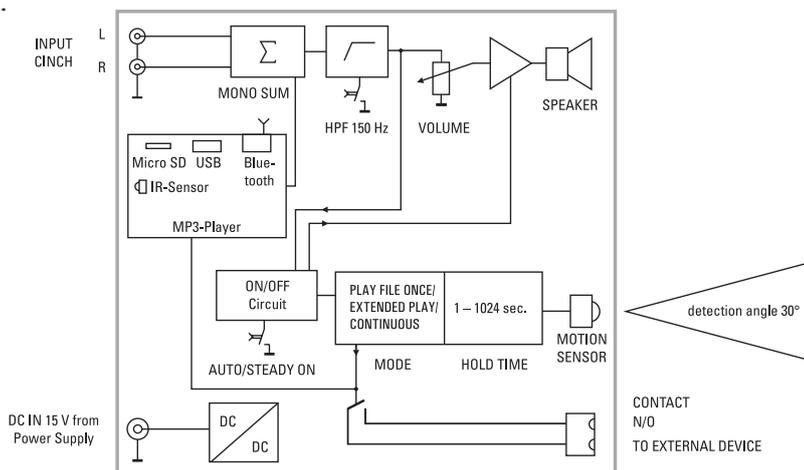
- Active directional speaker
- 30° motion sensor
- MP3 player integrated
- Switch for external Player
- Supercardioid pattern
- 3" full-range driver
- 80° dispersion angle
- Stereo-cinch input
- 20 watts power
- Switchable high-pass filter
- Auto-ON/OFF
- Standard version: White/Black

Technical Data

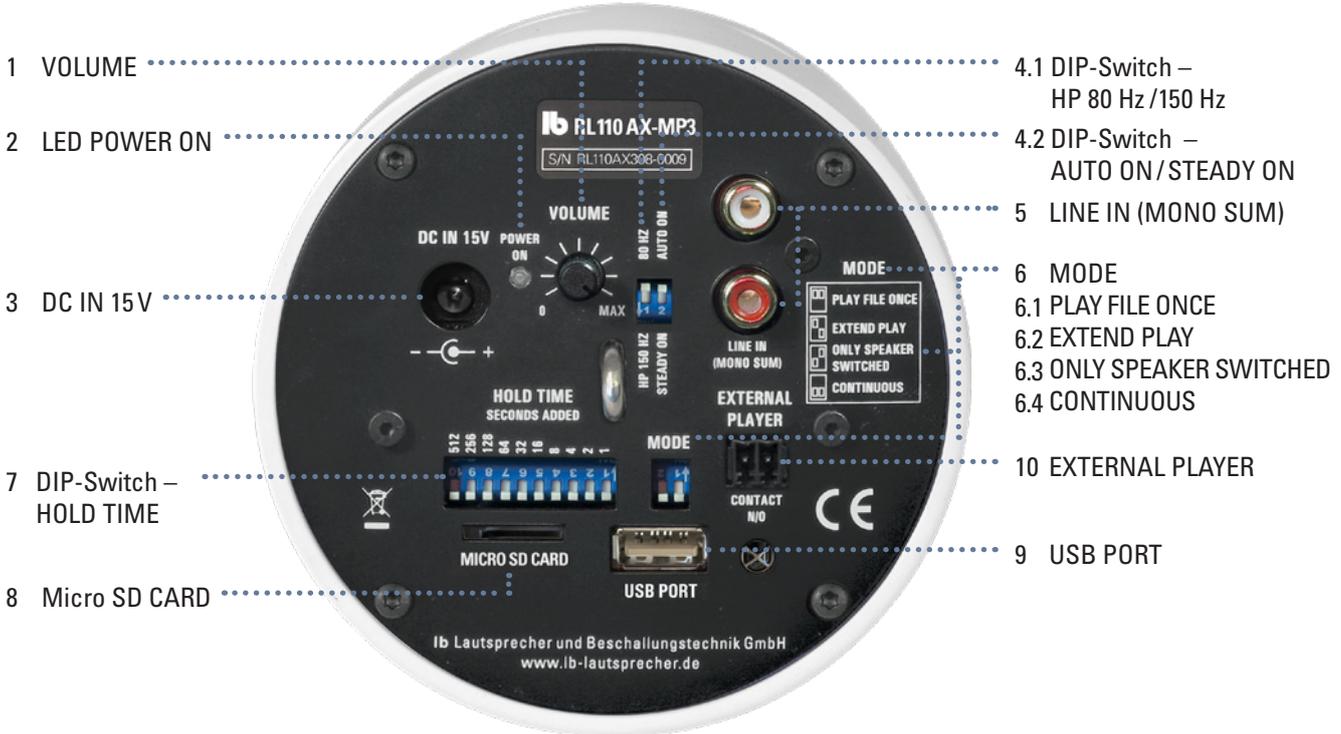
| | |
|----------------------|------------------------------------------------------------------------------------------------------|
| Principle | Active directional speaker with integrated motion sensor, MP3 player and supercardioid pattern |
| Components | 3"-full-range driver |
| Frequency range | 190 Hz – 19 kHz |
| Amplifier output | 20 watts |
| Sensitivity | max. 95 dB |
| Nominal dispersion | 80° |
| Connectors | Input cinch-stereo, switch for external player |
| Input sensitivity | -6 dBu for full modulation, input sensitivity 10 kohms |
| Operational controls | Volume control, switch auto ON/ steady ON, switchable high-pass filter, LED power ON, Dip-switch for |

| | |
|------------------|-----------------------------------------------------------------------------------------------------------------------------|
| | operating modes: PLAY FILE ONCE, EXTEND PLAY, ONLY SPEAKER SWITCHED, CONTINUOUS; Dip-switch to adjust delay (1 – 1024 sec.) |
| MP3-Player | plays MP3 or Wave files from Micro-SD or USB; Priority 1 = Micro-SD Priority 2 = USB |
| Power supply | 15 V DC (included in delivery) |
| Supply voltage | 90 – 240 V AC |
| Dimensions | d = 110 mm, l = 190 mm |
| Weight | 1.4 kg |
| Fastening points | Suspension point at the rear, threaded insert M 6 for L-bracket on the side |

Block Diagram



Controls and Functions



Integrated MP3-Player:

Before using an SD card or USB stick, the speaker has to be switched on, to read the medium.

Switch to 'CONTINUOUS' mode temporarily. As soon as the player detected the medium, it starts automatically, and you can switch in any other desired mode.

The playback of the audio file from micro-SD card or USB device starts with 2 sec. delay. The audio file or files will be played back in a infinite loop. The audio playback always starts at the beginning when activating the MP3 player, except at „ONLY SPEAKER SWITCHED“ mode.

1 VOLUME

Volume control

2 POWER ON

The LED lights up, when the speaker is switched on.

3 DC IN 15V

Connect the enclosed plug-switch power supply. If using another power supply please observe polarity and voltage.

4 Dip-switch for HP and AUTO ON

4.1 High-pass filter (80 Hz/150 Hz).

We recommend 150 Hz for speech intelligibility.

4.2 AUTO ON / STEADY ON

The setting "AUTO ON" will start the speaker as soon as the input gets an audiosignal. The speaker automatically switches to stand-by mode after 3 minutes without an signal. When the setting "STEADY ON" is switched, the speaker is permanently on.

The automatic switch-on function is irrelevant when using operating modes with motion sensor, the Dip-switch can be set to the "STEADY ON" position.

5 LINE IN (MONO SUM)

Audio input for external signal sources: A stereo signal is added up internally.

6 MODE

Setting of four operating modes

6.1 PLAY FILE ONCE

In the 'PLAY FILE ONCE' mode the speaker is activated by motion sensor and remains switched ,ON' until the setted hold time is completely expired. The speaker then can only get started again by motion sensor. The switch contact ,EXTERNAL PLAYER'(8) is closed as long as the speaker is active.

6.2 EXTEND PLAY

In the "EXTEND PLAY" mode the speaker is activated by motion sensor and remains switched ,ON' until the setted hold time is expired after the last detected movement. The switch contact ,EXTERNAL PLAYER'(8) is closed as long as the speaker is active.

6.3 ONLY SPEAKER SWITCHED

In the "ONLY SPEAKER SWITCHED" mode the speaker is activated by motion sensor and remains switched ,ON' until the setted hold time is expired after the last detected movement. The switch contact ,EXTERNAL PLAYER' is permanently closed.

6.4 CONTINUOUS

In the "CONTINUOUS" mode the motion sensor is disabled. The speaker plays the audio file continuously and the switch

contact ,EXTERNAL PLAYER' (8) is closed. The automatic switch-on remains active.

7 HOLD TIME (SECONDS)

The playback time can be set with the dip-switches „HOLD TIME“. The speaker switches back to stand-by mode when the setted hold time is expired. Every dip-switch has a fixed time and will be added to the constant ground time of 1 sec. Example: in order to a hold time of 25 sec., activate (ON) the dip-switches 4 (8 sec.) and 5 (16 sec). The maximum playback time of 1,024 seconds can be set.

8 Micro SD CARD

Card reader for sound files (Priority 1)

9 USB Port

Port for USB sticks (Priority 2)

10 EXTERNAL PLAYER

With the potential-free switch contact „EXTERNAL PLAYER“ an external media device can be controlled. The switch contact is a (N/O) contact, e. g. the external device should be programmed to playback at closed contact.

The operating modes of the switch contact comply with the internal player (6).

RL 110 PerZonic® Active Directional Speaker with automatic Volume Control

The actively controlled directional speaker RL 110 perZonic is a patented speaker system that has been developed for the targeted acoustic irradiation of confined listening areas with minimum sound escaping into the wider environment. The RL 110 perZonic is equipped with automatic volume control that adjusts the level of the signal to the ambient noise. This enables the speaker to reach the required volume in the listening zone even under different conditions and with fluctuating audience numbers. At the same time, it also ensures the level does not disrupt the quieter surroundings. This means that people in the listening zone can clearly hear the sound without causing disruption to personnel and visitors nearby. The RL 110 perZonic achieves this directed dispersion through a supercardioid pattern across the entire frequency range. The regulation can be set anywhere between 0 and 100 %, as can the attack and release times. The controls are located at the rear along with the mono-cinch input, volume control, the power LED and the connector for the external power supply.

- Active directional speaker with automatic volume control according to the ambient noise
- Supercardioid pattern
- 180° nominal dispersion
- 3" full-range driver
- 20 watts amplifier power
- Input mono cinch
- Standard version: White/Black

Note

For optimum results, the distance between the speaker and listener should be as short as possible. The distance between the speaker and reflecting walls or ceilings should be as long as possible.

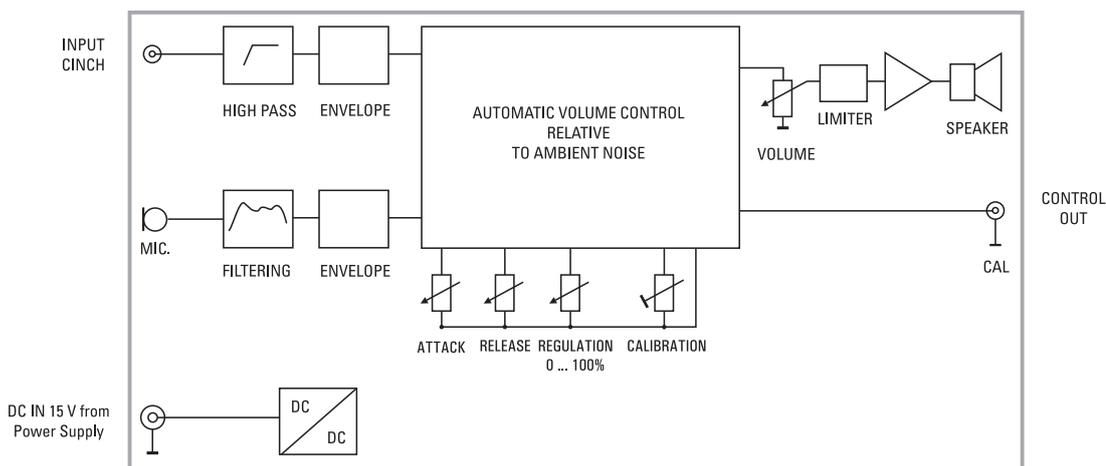


Technische Daten

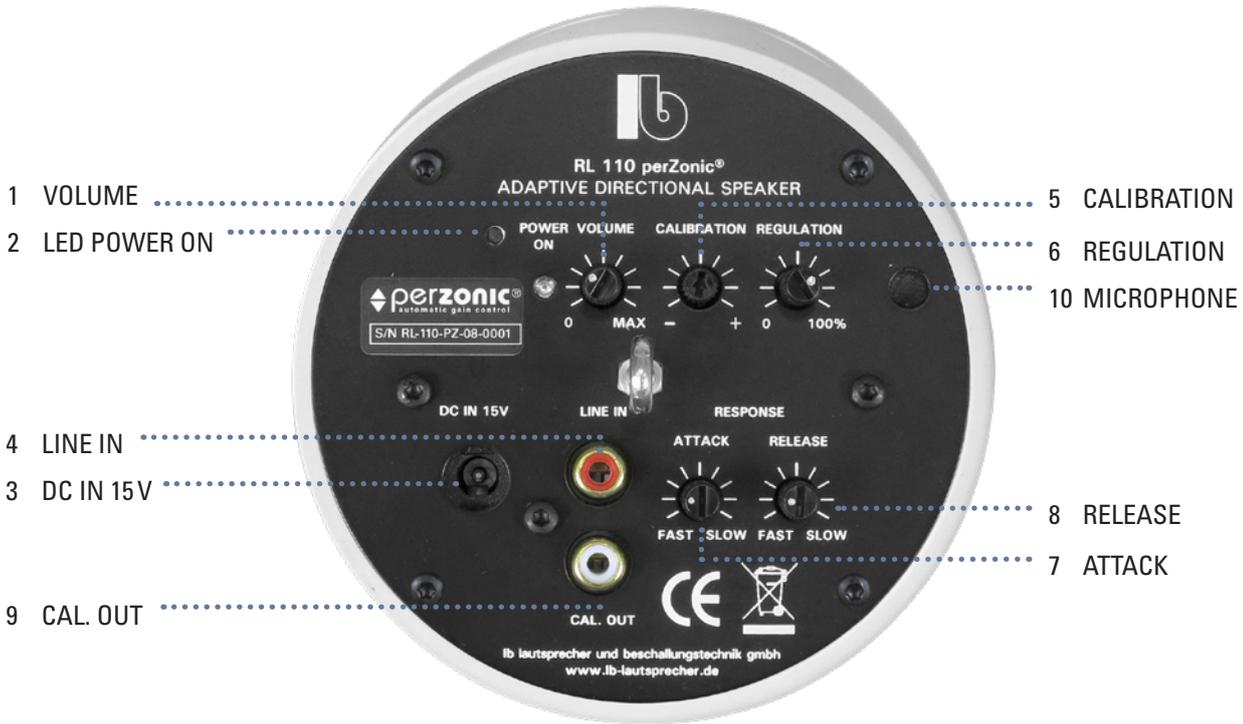
| | |
|--------------------|--------------------------------------------------------------------------------------------------------------------------|
| Principle | Active full-range directional speaker with automatic volume control according to ambient noise and supercardioid pattern |
| Components | 3" full-range driver |
| Frequency range | 190 Hz – 19 kHz |
| Amplifier output | 20 watts |
| Maximum SPL | 95 dB (1 W @ 1 m) |
| Nominal dispersion | 80° |
| Connectors | Input mono cinch |
| Input sensitivity | - 6 dBu for full modulation |

| | |
|----------------------|-----------------------------------------------------------------------------------------|
| Operational controls | Volume control, regulation 0 – 100 %, attack, release, LED power ON |
| Power supply | 230 V AC with plug-switch power supply (included in delivery) |
| Dimensions | d = 110 mm, l = 190 mm |
| Weight | 1.4 kg |
| Fastening points | Suspension point at the rear, threaded inserts M 6 on the side for balljoint wall mount |

Block Diagram



Controls and Functions



1 VOLUME

Volume control

2 LED POWER ON

The LED lights up, when the speaker is switched on.

3 DC IN 15 V

Connect the enclosed plug-switch power supply. If using another power supply please observe polarity and voltage.

4 LINE IN (MONO)

Audio input Impedance 10 kohm.

5 CALIBRATION

This trimmer is used to adjust the discrimination threshold of the automatic volume control. The trimmer is pre-set at the factory. However, the position of the speaker, the room acoustics and the audio file being played all have an impact on volume regulation.

To ensure you can set the optimum sensitivity level for volume regulation, you can adjust the trimmer using a small screwdriver.

If the sensitivity is set too high, the volume may increase even if there is no ambient noise. If this happens, the sensitivity must be reduced until the volume is stable again.

Default setting: Between 50 and 70%

Left (-) low sensitivity

Right (+) high sensitivity

6 REGULATION

This control is used to regulate the volume from 0 (fixed volume) to 100%.

Default setting: Approx. 80%

Left (0) = fixed volume

Right (MAX) = maximum volume

7 ATTACK

This control is used to regulate how quick the RL 110 Perzonic react to the ambient noise.

FAST: ~ 1 sec.

SLOW: ~ 30 sec.

8 RELEASE

This control is used to regulate how quick the volume fall to its minimum level.

FAST: ~ 1 sec.

SLOW: ~ 30 sec.

9 CAL. OUT

This is used to control the volume control activity with a voltmeter or oscilloscope (the regulation generates a negative DC voltage of 0–1 V). If the sensitivity is set too high, the RL 110 perZonic® generates the regulating voltage from the speaker signal and increases the volume. If this happens, use the CALIBRATION trimmer to reduce the sensitivity.

10 MICROPHONE

To measure the ambient noise.

The microphone should not be covered!

Further technical informations can be found
in the datasheets and on our website:
www.lb-lautsprecher.de/en/Directional-Speakers



**LB Lautsprecher
und Beschallungstechnik GmbH**

info@lb-lautsprecher.de
www.lb-lautsprecher.de
www.feiner-hoeren.de
[@LB_Audio_Components](https://www.instagram.com/LB_Audio_Components)

Tel +49 89 1893109-0 · Fax -29

Kapellenstr. 10
85622 Feldkirchen by Munich

Rear Page: Exhibition, Stiftung Haus der Geschichte der
Bundesrepublik Deutschland
Cover: ZKM Karlsruhe, id3d-berlin themengestaltung 2010

8/2023

Changes and errors excepted
© LB Lautsprecher und Beschallungstechnik GmbH