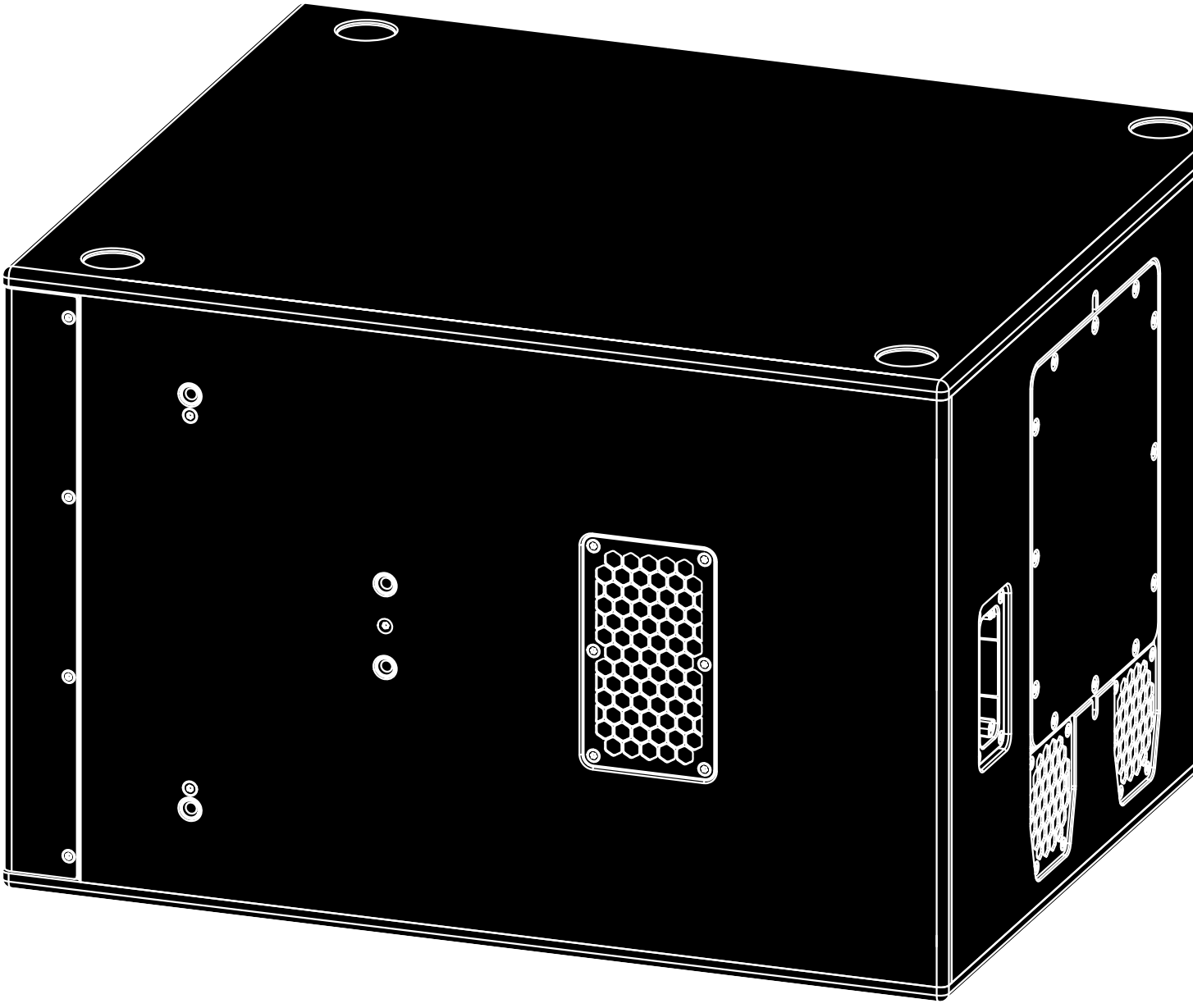
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Bi12-SUB
Manual 1.4 en



d&b audiotechnik

Notes on document version
All previous versions of this document are hereby no longer valid.

Version 1.4:
10D was listed in the technical specifications by mistake.

Refer to:
⇒ Chapter 2.4 “Technical specifications” on page 7.

General information

Bi12-SUB Manual

Version: 1.4 en, 08/2026, D2789.EN .01

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Potential risk of personal injury

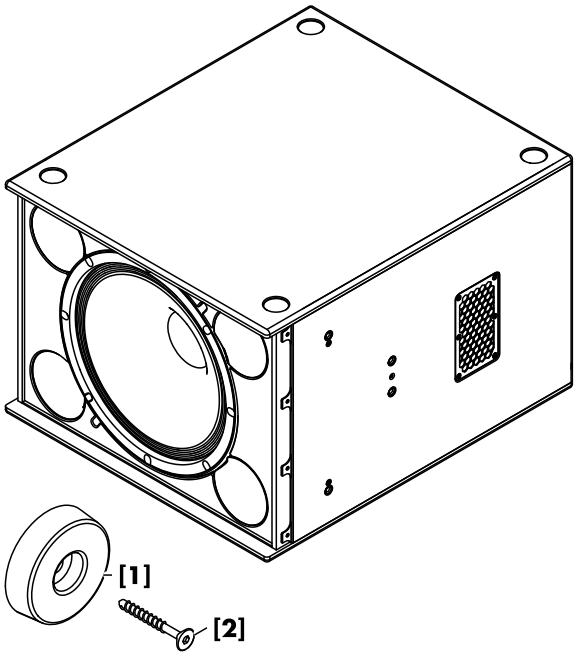
Never stand in the immediate vicinity of loudspeakers driven at a high level. Professional loudspeaker systems are capable of causing a sound pressure level detrimental to human health. Seemingly non-critical sound levels (from approx. 95 dB SPL) can cause hearing damage if people are exposed to it over a long period.

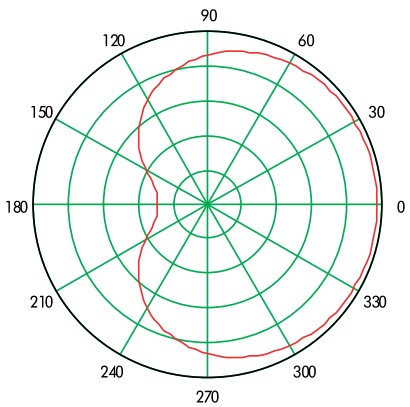
In order to prevent accidents when deploying loudspeakers on the ground or when flown, please take note of the following:

- When setting up the loudspeakers or loudspeaker stands, make sure they are standing on a firm surface. If you place several systems on top of one another, use straps to secure them against movement.
- Only use accessories which have been tested and approved by d&b for assembly and deployment. Pay attention to the correct application and maximum load capacity of the accessories as detailed in our specific "Mounting instructions" or in our "Rigging manuals".
- Ensure that all additional hardware, fixings and fasteners used for deployment are of an appropriate size and load safety factor. Pay attention to the manufacturers' instructions and to the relevant safety guidelines.
- Regularly check the loudspeaker housings and accessories for visible signs of wear and tear, and replace them when necessary.
- Regularly check all load bearing mounting devices.

Potential risk of material damage

Loudspeakers produce a static magnetic field even if they are not connected or are not in use. Therefore make sure when erecting and transporting loudspeakers that they are nowhere near equipment and objects which may be impaired or damaged by an external magnetic field. Generally speaking, a distance of 0.5 m (1.5 ft) from magnetic data carriers (floppy disks, audio and video tapes, bank cards, etc.) is sufficient.





Cardioid dispersion pattern

2.1 Intended use

NOTICE!

Only operate d&b loudspeakers with correctly configured d&b amplifiers, otherwise there is a risk of damaging the loudspeaker components and the directional characteristics of the system cannot be achieved.

Recommended amplifiers:
D90/D80/D40/D25/25D/40D

Product description

The Bi12-SUB is a compact high performance subwoofer intended for fixed installation purposes.

It houses two long excursion neodymium drivers in an integrated cardioid setup: a 15" driver in a bass-reflex design facing to the front and a 10" driver in a 2-chamber bandpass design radiating to the rear. The arrangement and tuning provide a cardioid dispersion pattern using a single amplifier channel.
Its frequency response extends from 39 Hz to 150/100 Hz.

The cabinet enclosure is constructed from marine plywood and has an impact and weather protected PCP finish. The front of the cabinet is protected by a rigid metal grill backed by an acoustically transparent and water repellent fabric.

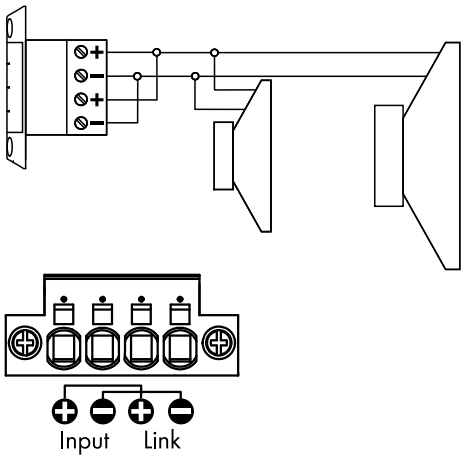
Four rubber feet **[1]** including screws **[2]** (Torx drive T20) are included with the shipment. These are intended to be optionally attached to the bottom panel to prevent cabinet movement and for protection against scratching when the cabinet is intended to be positioned directly on the floor.
Corresponding recesses are incorporated in the top panel to prevent cabinet movement when stacking cabinets.

Each side panel incorporates four threaded inserts M10 to allow the secure attachment of dedicated mounting accessories.

Cardioid dispersion

Cardioid dispersion avoids unwanted energy behind the system and greatly reduces the excitation of the reverberant field at low frequencies providing the greatest accuracy of low frequency reproduction.

The subwoofers can be used as stand-alone solutions or in stacked combinations with a minimum distance of 60 cm (2 ft) between adjacent cabinets or between the subwoofers and a side wall. When positioned in front of walls, the minimum distance to rear walls should be 10 cm (0.3 ft).



Connector wiring

2.2 Connections

The cabinets are fitted with a 4-pole Phoenix connector socket (Type: DFK PC 4/4 GF) using the pin assignment 1:+, 2:–, 3:+, 4:–. Pins 1/3 and 2/4 are linked.
A corresponding Phoenix plug (Type: SPC 5/4) is enclosed with the cabinet.

Phoenix specifications and recommendations

The cabinet comes with a Phoenix plug (type: SPC 5/4 Push-in spring connector) which is already connected to the corresponding Phoenix socket of the cabinet.
The plug allows for direct wire connection without any tools depending on the cross-section and conductor structure.

Technical specifications

Conductor cross-section .....

Flexible, ferrule without plastic sleeve .....up to 6 mm^2 (AWG 9)

Flexible, ferrule with plastic sleeve ..... up to 4 mm^2 (AWG 11)

Ferrule length (min/max) ..... 10/15 mm

Release tool .....Flat-tip screwdriver 0.6 x 3.5 x 100 mm

Recommended connecting cable

.....Ferrule without plastic sleeve (enclosed with the cabinet)

d&b LoadMatch

With the d&b four channel amplifier platform, the LoadMatch function enables the amplifier to electrically compensate for the properties of the loudspeaker cable used without the need for an additional sense wire. For applicable loudspeakers, LoadMatch is therefore independent of the connector type used.

2.3 Operation

Amplifier output mode(s): Dual Channel or Mix TOP/SUB		
Application	**Setup**	**Cabinets per channel**
Bi12-SUB	B12-SUB	2

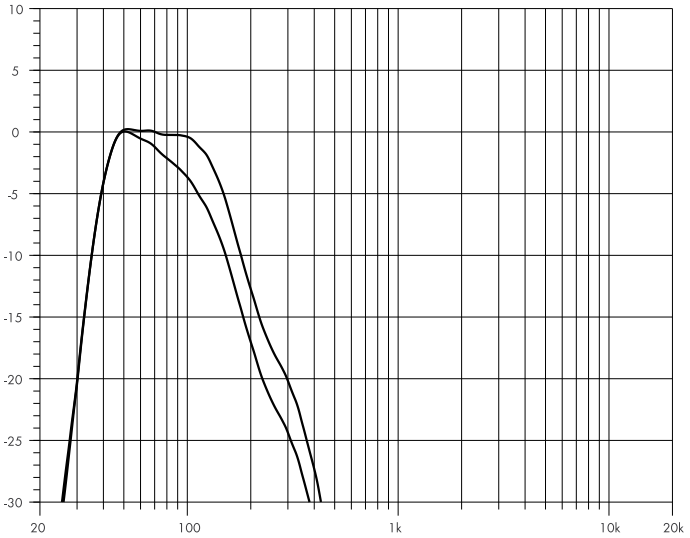
2.3.1 Controller settings

For acoustic adjustment the 100 Hz mode can be selected.

100 Hz mode

With the 100 Hz mode selected, the upper operating frequency of the system is reduced from 150 Hz to 100 Hz.

It can be used when Bi12-SUB cabinets are used to supplement TOP cabinets operated in full range mode, for example in a distributed sound system.
The 100 Hz mode can also be used to compensate for the effect of close coupling between the subwoofer and TOP cabinets operated in CUT mode.



Bi12-SUB frequency response, Standard and 100 Hz modes

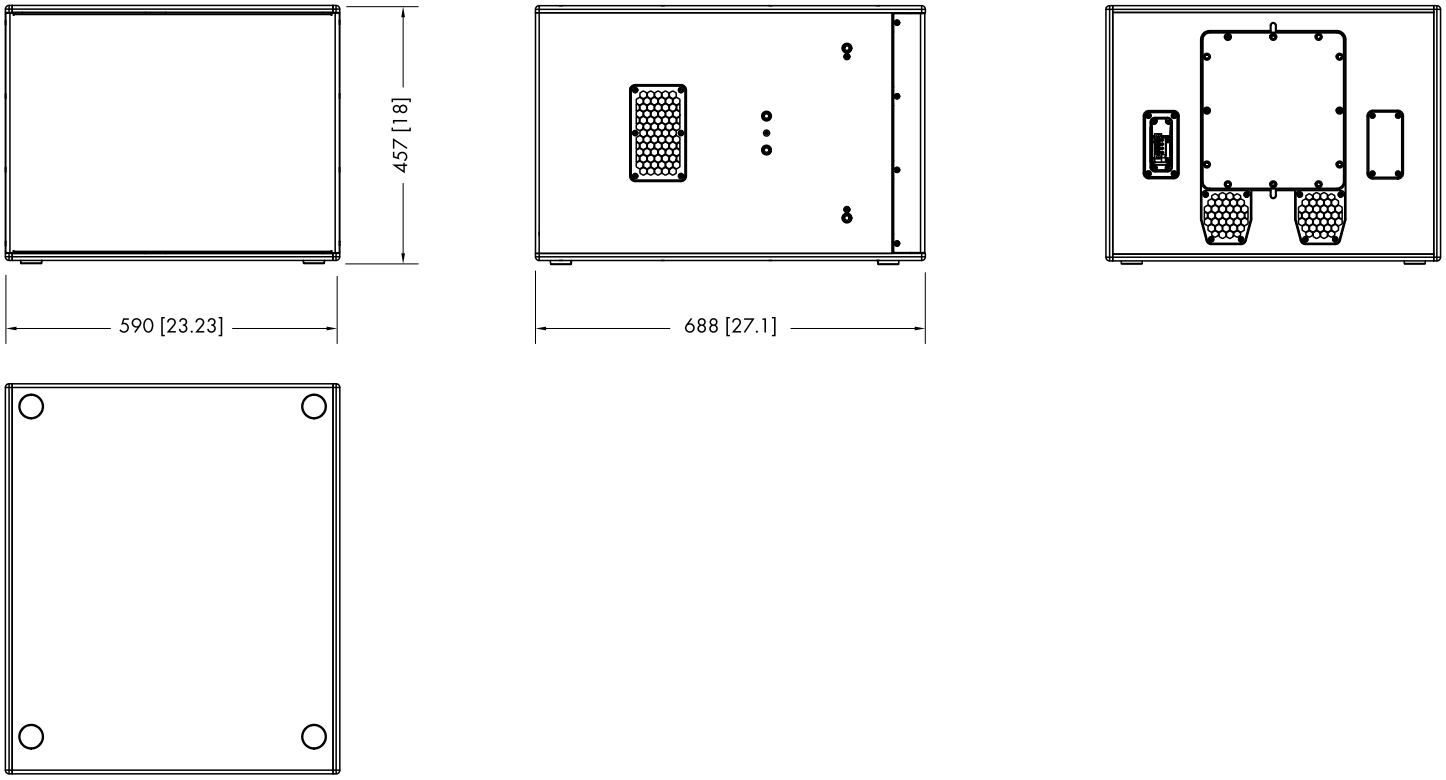
2.4 Technical specifications

System data

Frequency response (–5 dB Standard) ..... 39 Hz - 150 Hz
Frequency response (–5 dB 100 Hz mode) ..... 39 Hz - 100 Hz
Frequency response (–10 dB standard, IEC60268) ..... 35 Hz - 180 Hz
Frequency response (–10 dB 100 Hz mode, IEC60268) . 35 Hz - 140 Hz
Max. SPL (Peak, 1 m, free field, pink noise with crest factor 4) .....
with D25/D20/25D/30D ..... 129 dB
with D40/D90/D80/40D ..... 132 dB

Loudspeaker data

Nominal impedance front/rear ..... 10 ohms
Power handling capacity (RMS/peak 10 ms) ..... 500/1200 W
Components ..... 1 x 15" driver front/1 x 10" driver rear
Connections ..... Phoenix socket (Type: DFK PC 4/4 GF)
..... Phoenix Plug (Type: SPC 5/4)
Weight ..... 37 kg (82 lb)



Bi12-SUB cabinet dimensions in mm [inch]

3.1 Conformity of loudspeakers

This declaration applies to:

- **d&b Z0871 Bi12-SUB loudspeaker**

by d&b audiotechnik GmbH & Co. KG.

All product variants are included, provided they correspond to the original technical version and have not been subject to any later design or electromechanical modifications.

We herewith declare that said products are in conformity with the provisions of the respective directives including all applicable amendments.

Detailed and applicable declarations are available on request and can be ordered from d&b or downloaded from the d&b website at www.dbaudio.com.

3.2 WEEE Declaration (Disposal)



Electrical and electronic equipment must be disposed of separately from normal waste at the end of its operational lifetime.

Please dispose of this product according to the respective national regulations or contractual agreements. If there are any further questions concerning the disposal of this product, please contact d&b audiotechnik.

WEEE-Reg.-Nr. DE: 13421928

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