

B4-SUB

Manual (1.1 EN)

Symbols on the equipment



Please refer to the information in the operating manual.



WARNING!
Dangerous voltage!

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General Information

B4-SUB Manual

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Keep this manual with the product or in a safe place so that it is available for future reference.

When reselling this product, hand over this manual to the new customer.

If you supply d&b products, please draw the attention of your customers to this manual. Enclose the relevant manuals with the systems. If you require additional manuals for this purpose, you can order them from d&b.

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Safety precautions



WARNING!

Information regarding use of loudspeakers

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 mobile deployment. Pay attention to the correct application and maximum load capacity of the accessories as detailed in our specific "Mounting instructions" or in our "Flying system and Rigging manuals".

Ensure that all additional hardware, fixings and fasteners used for installation or mobile deployment are of an appropriate size and load safety factor. Pay attention to the manufacturers' instructions and to the relevant safety guidelines.

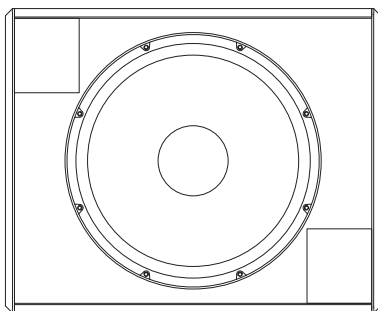
Regularly check the loudspeaker housings and accessories for visible signs of wear and tear, and replace them when necessary.

Regularly check all load bearing bolts in the mounting devices.

CAUTION!

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; a distance of more than 1 m (3 ft) may be necessary with computer and video monitors.

B4-SUB



The B4-SUB is a compact high performance cardioid subwoofer for use with d&b E-Series and T-Series loudspeakers.

The B4-SUB 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 12" 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 40 Hz to 150/100 Hz.

The B4-SUB cabinet is constructed from marine plywood and has an impact and weather resistant black paint finish. The front of the cabinet is protected by a rigid metal grill in front of an acoustically transparent foam. At the top and bottom the cabinet front is fitted with catches for securing an optional transport lid E7922. The cabinet incorporates a pair of handles, and mounted on the rear panel are two EP5 or NL4 connectors and four heavy duty wheels. An M20 threaded flange in the top panel accepts the d&b Z5013 Loudspeaker stand for the deployment of d&b E-Series or T-Series cabinets.

Two plastics runners prevent cabinet movement and protect the bottom panel against scratching. Correspondingly shaped recesses in the top panel of each cabinet prevent cabinet movement when stacking B4-SUBs.

NOTICE: Only operate B4-SUB loudspeakers with a correctly configured d&b amplifier, otherwise there is a risk of damaging the loudspeaker components.

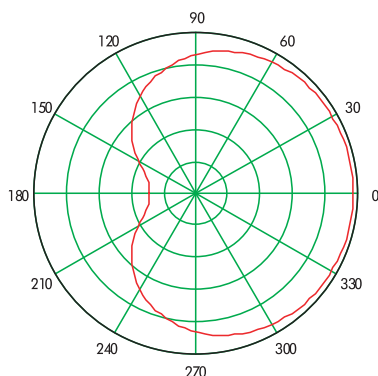


Fig. 1: Cardioid dispersion pattern

Cardioid dispersion

Cardioid dispersion avoids unwanted energy behind the system and greatly reduces the reverberant field at low frequencies providing highest accuracy in low frequency reproduction. B4 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 cabinets and a side wall. When set up in front of walls, the minimum distance from the rear panel of the cabinet to the wall is provided by the wheels on the cabinet back.

B4-SUB cabinet options

The special color (SC) version of the cabinet is available in all colors of the RAL color table. The connector type is NL4.

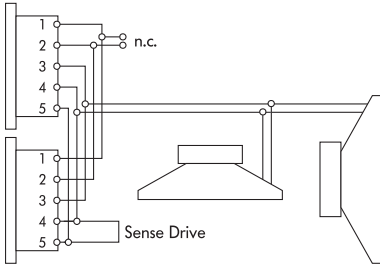


Fig. 2: Connector wiring

Connections

The B4 cabinet is fitted with a pair of EP5 connectors. All five pins of both connectors are wired in parallel. The B4-SUB uses the pin assignments 3/4 and 5. Pin 5 is used for SenseDrive (only available when using a D12 amplifier and 5-wire cabling). Pins 1/2 are designated to E-Series and T-Series full range systems. Using the male connector as the input, the female connector allows for direct connection to additional loudspeakers.

The B4-SUB can be supplied with NL4 connectors as an option. The D12 SenseDrive function is not available when using NL4 connectors.

Pin equivalents of EP5 and NL4 connectors are listed in the table below.

EP5	1	2	3	4	5
NL4	1+	1-	2+	2-	n.a.

Operation with D6 or D12

Select the controller setup B4-SUB.

Within the D12 amplifier this is available in "Dual Channel" and "Mix TOP/SUB" mode.

Selecting the B4-SUB setup enables up to two B4-SUB loudspeakers to be driven by the respective D6 or D12 channel.

To apply SenseDrive for the subwoofer, EP5 connectors and 5-wire cables have to be used. When operated in Mix TOP/SUB" mode, the subwoofer has to be fed from the output B connector of the D12 amplifier.

100 Hz circuit

If the 100 Hz circuit is selected the upper operating frequency of the system is reduced from 150 Hz to 100 Hz. It can be used when actively driven B4-SUB subwoofers are used to supplement E-Series 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 B4-SUB and E-Series cabinets operated in CUT mode. With T-Series cabinets the standard mode is recommended.

IMPORTANT!

Technical specifications

B4-SUB system data

Frequency response (-5 dB standard).....	40 Hz ... 150 Hz
Frequency response (-5 dB 100 Hz mode).....	40 Hz ... 100 Hz
Max. sound pressure (single cabinet, 1 m, free field) with D12	131 dB
Max. sound pressure (single cabinet, 1 m, free field) with D6	128 dB
(SPLmax peak, pink noise test signal with crest factor of 4)	

B4-SUB subwoofer

Nominal impedance.....	6 ohms
Power handling capacity (RMS / peak 10 ms).....	500/2000 W
Components.....	1x15" driver
.....	1x12" driver
Connections.....	2 x EP5
.....	Optional and SC option: 2 x NL4
Pin assignments.....	EP5: 3/4, SenseDrive pin 5
.....	NL4: 2+/2-
Weight.....	44 kg (97 lb)

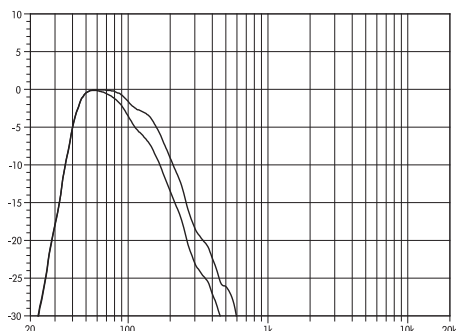


Fig. 3: B4-SUB frequency response, standard and 100 Hz settings

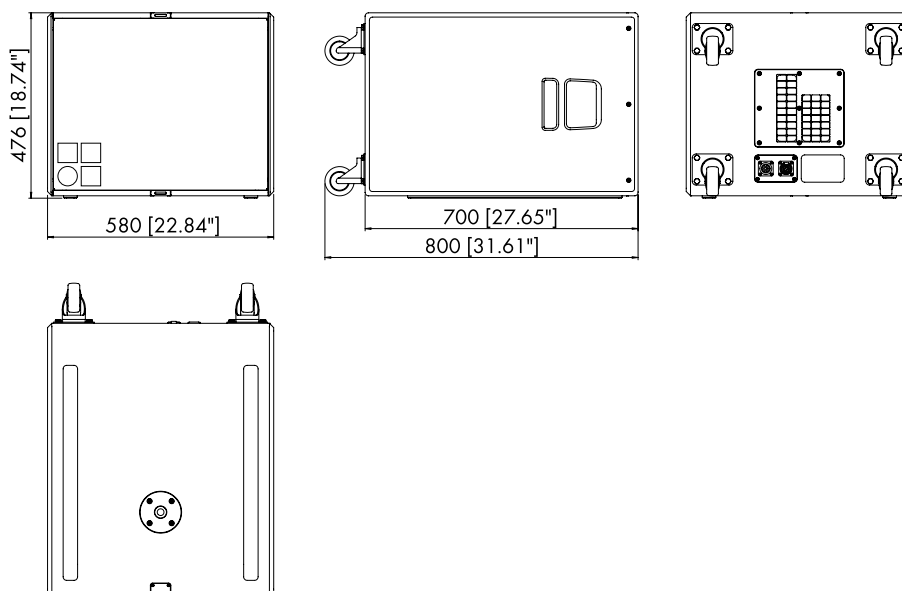


Fig. 4: B4-SUB cabinet dimensions in mm [inch]

Manufacturer's declarations



EU conformity of loudspeakers (CE symbol)

This declaration applies to:

d&b B4-SUB loudspeaker, Z0610

manufactured by d&b audiotechnik GmbH.

All production versions of this type 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 EC directives including all applicable amendments.

A detailed declaration is available on request and can be ordered from d&b or downloaded from the d&b website at www.dbaudio.com.

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.

