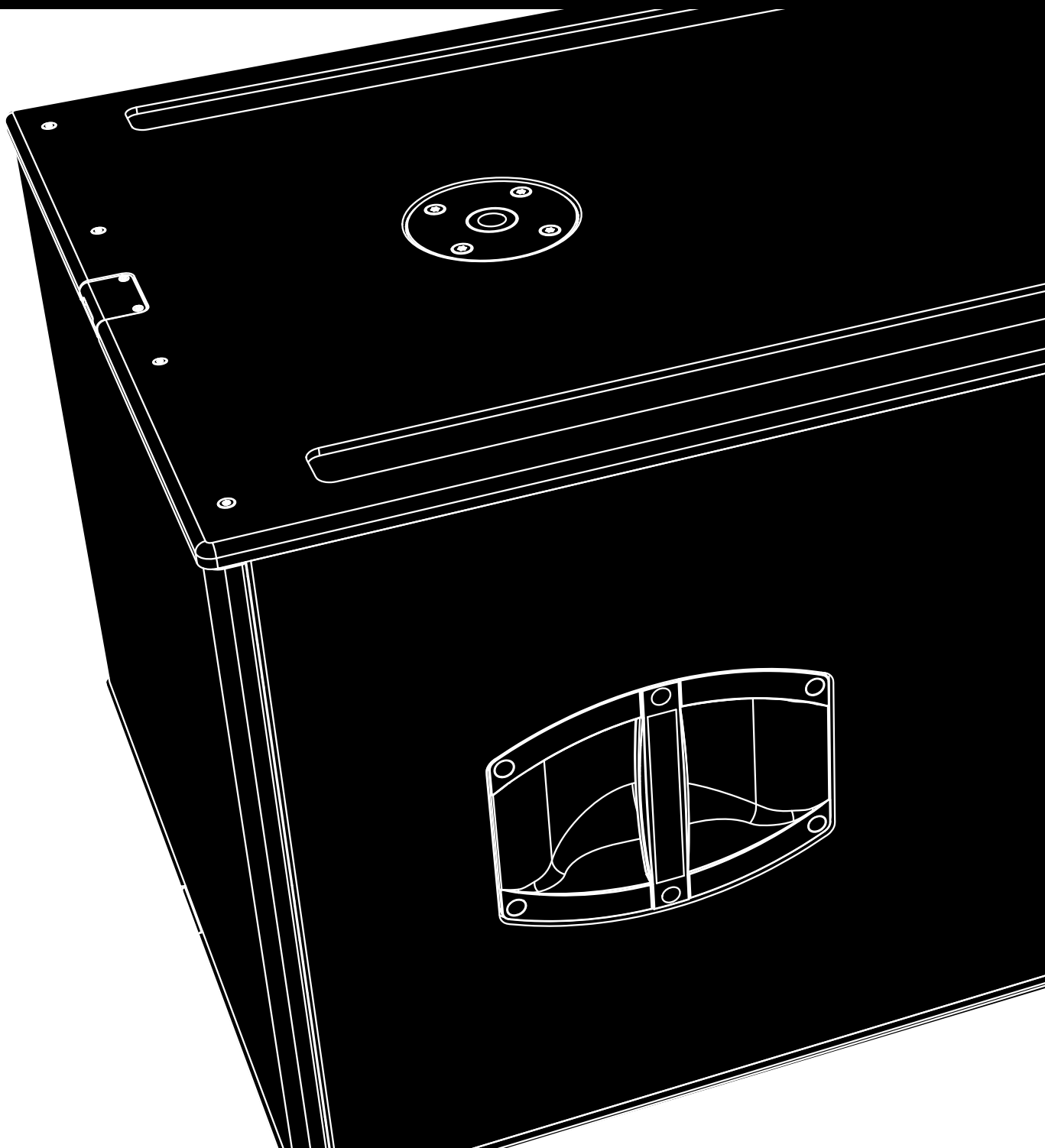


# B

**B6-SUB**  
**Manual 1.2 en**



## **General information**

B6-SUB Manual

Version: 1.2 en, 04/2016, D2716.EN .01

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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 owner.

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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## 1.1. Information regarding the use of loudspeakers

### 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.

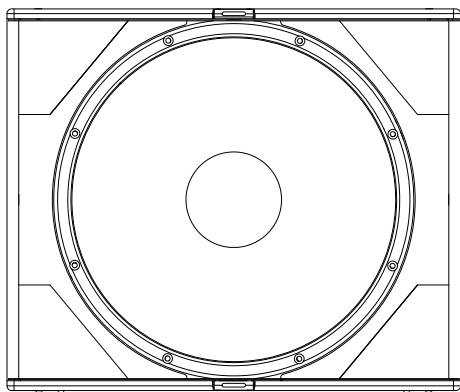
In order to prevent accidents when deploying loudspeakers on the ground or when flown, please take note of the following:

- 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 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.

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

## 2. B6-SUB loudspeaker

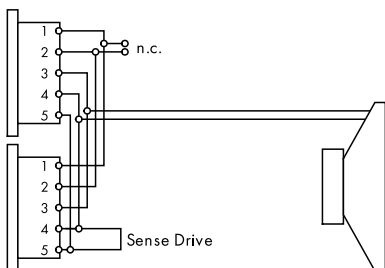
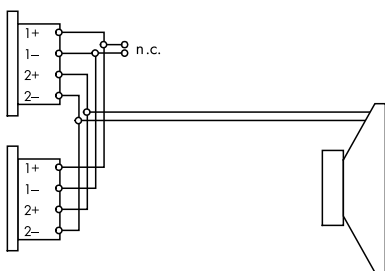


### 2.1. Product description

The B6-SUB is an actively driven, compact, high performance subwoofer.

The cabinet houses a long excursion 18" driver with a ferrite magnet in a bass-reflex design. Its frequency response extends from 37 Hz to 140 Hz.

The cabinet is constructed from marine plywood and has an impact and weather protected PCP (Polyurea Cabinet Protection) finish. The front of the loudspeaker cabinet is protected by a rigid metal grill backed by an acoustically transparent foam. Each side panel incorporates a handle and mounted on the rear panel are four heavy duty wheels. An M20 threaded flange in the top panel accepts a loudspeaker stand for the deployment of top cabinets. Two runners recessed in the bottom panel prevent cabinet movement and protect the bottom panel against scratching. Correspondingly shaped recesses in the top panel of the cabinet prevent cabinet movement when stacking B6-SUBs.



**NLT4 F/M, NL4 M and EP5 connector wiring**

### 2.2. Connections

The cabinet is fitted NLT4 F/M connectors. All four pins of both connectors are wired in parallel. The B6-SUB uses the pin assignments 2+/2-. Pins 1+/1- are designated to TOP cabinets. Using one as the input, the second connector allows for direct connection to a second cabinet.

The cabinet can be supplied with NL4 M or EP5 connectors as an option.

Pin equivalents of the connector options are listed in the table below.

NLT4 F/M NL4 M	1+	1-	2+	2-	n.a.
EP5	1	2	3	4	5 (SenseDrive)

#### d&b SenseDrive

The SenseDrive feature within D12 amplifiers enables electrical compensation for the properties of the loudspeaker cable used. SenseDrive requires an additional sense wire. SenseDrive is therefore only available with EP5 connectors and 5-wire cabling for applicable loudspeakers.

**Note:** When the D12 is operated in "Mix TOP/SUB mode", the SenseDrive function is only available at the output B connector.

#### d&b LoadMatch

Starting with the D80 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

### NOTICE!

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

#### Applicable d&b amplifiers:

D80/D20/D12/D6/10D/30D.

Application	Setup	Cabinets per channel
<b>B6-SUB</b> Standard	B6-SUB	2
<b>B6-SUB</b> INFRA	B6-INF (D80/D20/30D)	2

Within applicable d&b amplifiers, the controller setups are available in Dual Channel or Mix TOP/SUB mode.

#### 2.3.1. Controller settings

Within the B6-SUB standard setup, for acoustic adjustment the 100 Hz and CSA mode can be selected.

##### 100 Hz mode

It can be used when actively driven B6-SUB subwoofers 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 B6-SUB and TOP cabinets operated in CUT mode.

##### CSA mode

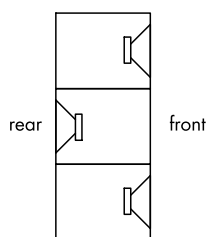
The CSA (**C**ardioid **S**ubwoofer **A**rray) mode enables the combination of three or multiples of three subwoofer cabinets into an array which produces exceptional low frequency directivity control.

The amplifier channel for the center subwoofer of the array, which is physically pointed to the rear, has CSA selected. The forward facing cabinets are driven with an amplifier channel set to standard mode. The resulting cardioid behavior of the array will significantly reduce the energy radiated to the rear.

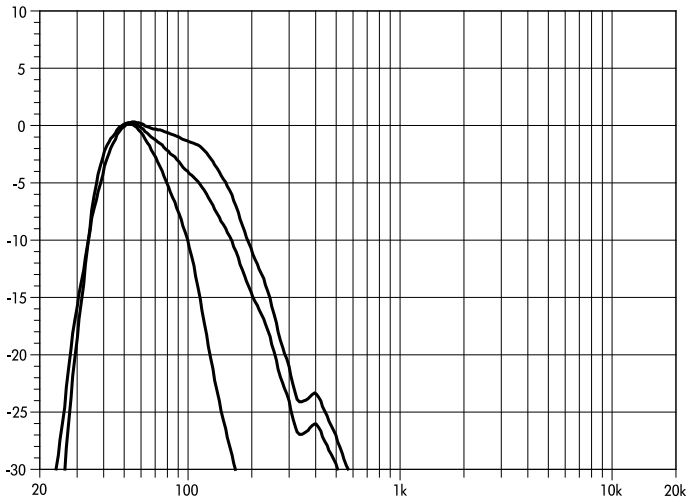
For further information, please refer to the d&b TI 330 Cardioid Subwoofer Array, which is available for download at [www.dbaudio.com](http://www.dbaudio.com).

##### B6-INF setup

With the B6-INF setup selected, the upper operating frequency of the B6-SUB is reduced to 80 Hz. The B6-SUB can now be used to supplement applicable d&b loudspeaker systems operated in full range mode.



CSA Stack (example)



**B6-SUB frequency response, standard, 100 Hz and INFRRA modes**

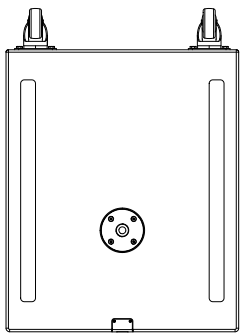
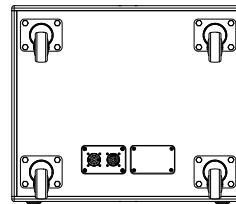
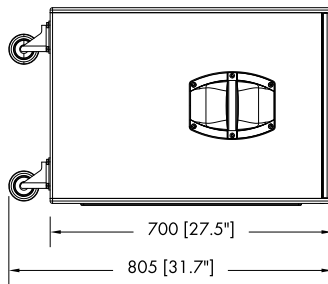
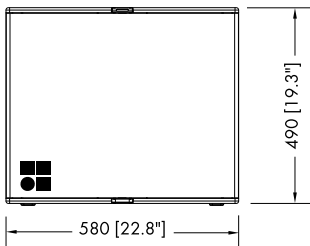
## 2.4. Technical specifications

### B6-SUB system data

Frequency response (-5 dB standard) .....	37 Hz - 140 Hz
Frequency response (-5 dB 100 Hz mode) .....	37 Hz - 110 Hz
Frequency response (-5 dB INFRRA mode) .....	35 Hz - 80 Hz
Max. sound pressure (1 m, free field) .....	
with D6/10D .....	128 dB
with D12/D20/30D .....	131 dB
with D80 .....	134 dB
.....(SPLmax peak, pink noise test signal with crest factor of 4)	

### B6-SUB loudspeaker

Nominal impedance .....	8 ohms
Power handling capacity (RMS/peak 10 ms) .....	500/2000 W
Components .....	1 x 18" driver with ferrite magnet
Connections .....	2 x NLT4 F/M
.....	optional 2 x NL4 M or EP5
Pin assignment .....	NLT4 F/M and NL4 M: 2+ / 2-
.....	EP5: 3: + / 4: -
Weight .....	41 kg (90 lb)



**B6-SUB cabinet dimensions in mm [inch]**



### 3.1. EU conformity of loudspeakers (CE symbol)

This declaration applies to:

#### **d&b B6-SUB loudspeaker, Z0710**

manufactured by d&b audiotechnik GmbH.

All production versions of these types 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](http://www.dbaudio.com).

#### **3.1.1. 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.





