E12-SUB

Manual (4.1 EN)

d&b audiotechnik

Symbols on the equipment

Please refer to the information in the operating manual.

WARNING!
Dangerous voltage!

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General Information

E12-SUB Manual

Version 4.1 EN, 03/2008, D2073.E.04

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

Information regarding use of loudspeakers

WARNING!

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.

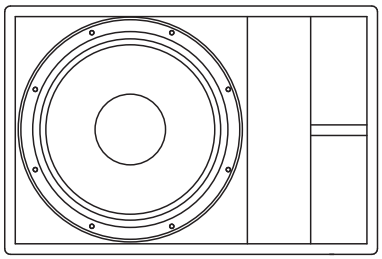
Regularly check the loudspeaker housings and accessories for visible signs of wear and tear and replace them when necessary.

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.

E12-SUB



The E12-SUB is a compact bass-reflex design employing a high excursion 12" driver. The large, specially shaped reflex port enables the E12-SUB to achieve high sound pressure levels with minimal power compression and breathing effects.

The E12-SUB cabinet is constructed from marine plywood and has an impact resistant paint finish. The front of the loudspeaker cabinet is fitted with a rigid metal grill covered with a replaceable acoustically transparent foam. The cabinet incorporates a steel handle on one side and on the top panel is an M20 threaded flange to accept the Z5013 Loudspeaker stand for the deployment of a single cabinet.

NOTICE: Only operate E12-SUB loudspeakers with a correctly configured d&b amplifier, otherwise there is a risk of damaging the loudspeaker components.

Connections

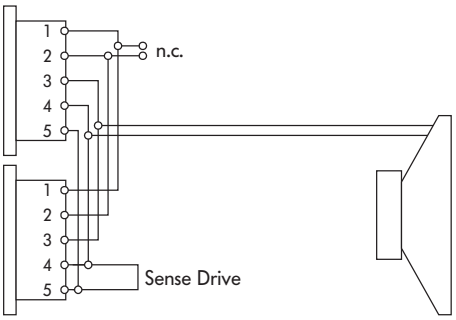


Fig. 1: Wiring of the connectors

The E12-SUB cabinet is fitted with a pair of EP5 connectors. All pins of both connectors are wired in parallel. The E12-SUB uses the pin assignments 3/4 and 5 (Pin 5: SenseDrive - D12 only and in conjunction with 5-wire cables). Pins 1/2 are designated to d&b full range systems. Using one connector as the input, the second connector allows for direct connection to additional cabinets.

The E12-SUB can be supplied with NL4 output connectors as an option using the pin assignment 2+/2–. Pins 1+/1– are designated to d&b full range systems. The D12 SenseDrive function is not available with NL4 connectors.

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

EP5	1	2	3	4	5 (SenseDrive SUB)
NL4	1+	1–	2+	2–	n.a.

Operation with D6 or D12

Select the controller setup E12-SUB.

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

Up to a total of two E12-SUBs can be driven by each D6 or D12 amplifier channel.

In applications with low continuous levels and low ambient temperatures up to three cabinets can be connected to a D12 channel.

When the D12 is operated in "Mix TOP/SUB" mode, E12-SUB cabinets and respective full range systems can be linked together locally and fed by a single 4-wire cable from either amplifier output connector.

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

Controller settings

For acoustic adjustment the 140 Hz function can be selected.

140 Hz circuit
If the 140 Hz setting is selected, the upper operating frequency of the system is increased from 120 Hz to 140 Hz. This setting allows the E12-SUB to operate with up to four E0 loudspeakers.

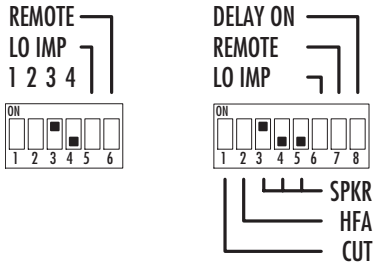
Operation with E-PAC

Selecting E12-SUB mode enables the E-PAC to drive one E12-SUB loudspeaker.

For an E-PAC version 1 or 2, the configuration is selected by setting the appropriate DIP switches on the rear panel. The E12-SUB configuration on E-PAC version 2 is identical to the SUB configuration on E-PAC version 1.

For an E-PAC version 3, the configuration is set via the encoder in conjunction with an LCD.

The 140 Hz setting is available on version 3 (Firmware version 3.13 and higher). The characteristics of the 140 Hz setting are explained in the previous section "Operation with D6 or D12 - Controller settings".



E-PAC version 1 E-PAC version 2
Fig. 2: E-PAC configuration for E12-SUB

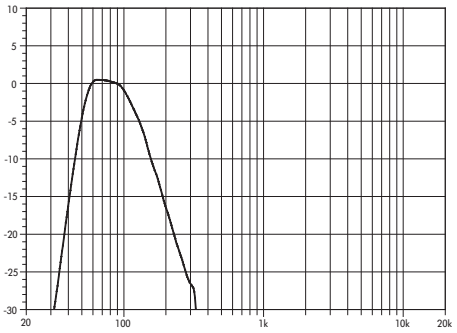


Fig. 3: E12-SUB frequency response

Technical specifications

E12-SUB system data

Frequency response (–5 dB).....50 Hz - 120 Hz
Max. sound pressure (1 m, free field) with D12.....127 dB
Max. sound pressure (1 m, free field) with D6.....125 dB
(SPLmax peak, pink noise test signal with crest factor of 4)
Input level (100 dB SPL / 1 m).....–8 dBu

E12-SUB subwoofer

Nominal impedance.....8 ohms
Power handling capacity (RMS / peak 10 ms).....200 /800 W
Connections.....2 x EP5
Pin assignments.....3/4 and 5 (Pin 5: SenseDrive - D12)
optional.....2 x NL4
Pin assignments.....2+ / 2–
Weight.....20 kg (44 lb)

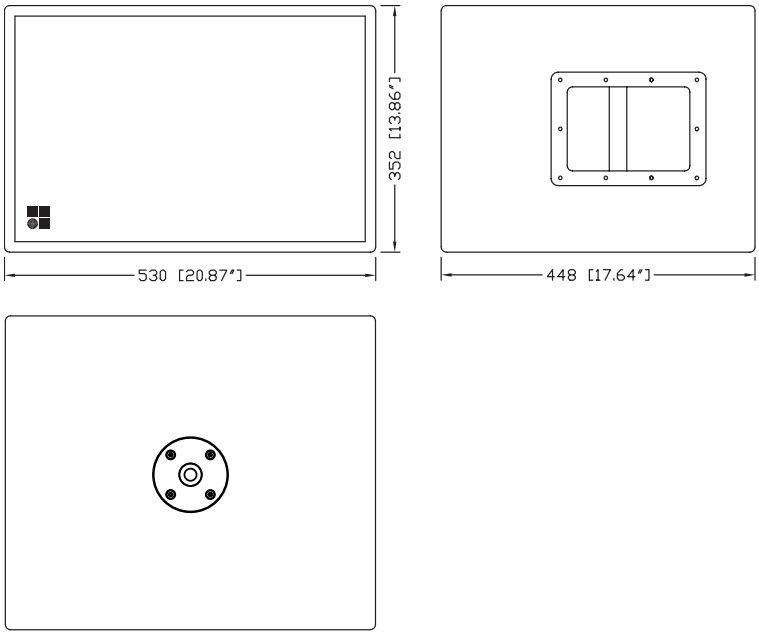


Fig. 4: E12-SUB cabinet dimensions in mm [inch]

Manufacturer's declarations

EU conformity of loudspeakers (CE symbol)

This declaration applies to:

d&b E12-SUB Z0200

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.

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