

# **E15X-SUB**

## **Manual (1.0EN)**



## Symbols on the equipment

Please refer to the information in the operating manual.

**WARNING!**  
**Dangerous voltage!**

## Contents

<b>Safety precautions.....</b>	<b>3</b>
Information regarding use of loudspeakers.....	3
<b>E15X-SUB .....</b>	<b>4</b>
Connections.....	4
Operation with D12 or D6.....	5
Operation with E-PAC.....	5
Technical specifications.....	6
<b>Manufacturers declarations.....</b>	<b>7</b>
EU conformity of loudspeakers (CE symbol).....	7
WEEE declaration (Disposal).....	7

## General Information

E15X-SUB Manual

Version 1.0EN, 10/2007, D2032.EN .01

Copyright © 2007 by d&b audiotechnik AG; all rights reserved.

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

In the case of reselling this product handout 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.

d&b audiotechnik AG  
Eugen-Adolff-Strasse 134, D-71522 Backnang, Germany  
Telephone +49-7191-9669-0, Fax +49-7191-95 00 00  
E-mail: docadmin@dbaudio.com, Internet: www.dbaudio.com

## 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.

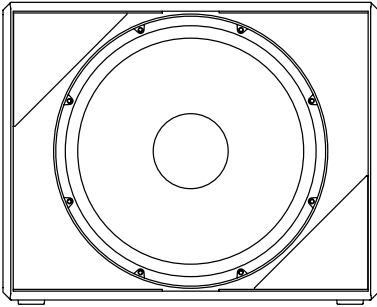
Regularly check the loudspeaker housings and accessories for visible signs of wear and tear, and replace them when necessary.

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.

## E15X-SUB



**Fig. 1: E15X-SUB loudspeaker**

The E15X-SUB is a compact high performance subwoofer for use with d&b E-Series loudspeakers. It employs a long excursion 15" neodymium driver in a bass-reflex enclosure.

Due to the built in passive crossover network the E15X-SUB can be operated in parallel to E12 or E12-D loudspeakers on one amplifier channel, greatly extending the low frequency headroom and bandwidth of the systems.

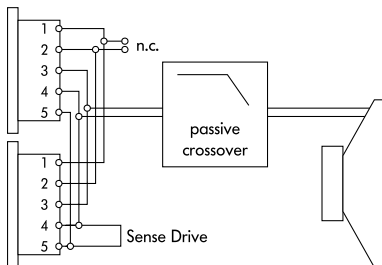
As an alternative it can be operated actively driven by its own amplifier channel without the need for any changes to the cabinet. In active mode the E15X-SUB can be used to supplement any of the E-Series cabinets, its frequency response extending from 37 Hz to 100/140 Hz.

The E15X-SUB cabinet is constructed from marine plywood and has an impact resistant paint finish. The front of the loudspeaker cabinet is protected by a rigid metal grill in front of a acoustically transparent foam. The cabinet incorporates a pair of handles and an M20 threaded flange in the top panel that accepts the d&b Z5013 Loudspeaker stand for the deployment of full range cabinets.

Four rubber feet 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 E15X-SUBs.

### CAUTION!

Only operate E15X-SUB loudspeakers with a correctly configured d&b amplifier otherwise there is a risk of damage to the loudspeaker components.



**Fig. 2: Connector wiring**

### Connections

The E15X cabinet is fitted with a pair of EP5 connectors. All five pins of both connectors are wired in parallel. The E15X-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 full range systems. Using the male connector as the input, the female connector allows for direct connection to additional loudspeakers.

The E15X-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.

**Tab. 1: EP5 and NL4 pin assignments**

## Operation with D12 or D6

### Passive operation connected in parallel to E12 or E12-D

Select the setup E12-X respectively E12-DX when E12 or E12-D cabinets are used in combination with E15X-SUB loudspeakers on the same channel. Compared to the standard E12, E12-D setups the X versions provide a dedicated correction for the combined frequency response of these systems. D12 amplifiers have to be set to "Dual Channel" to access these.

### IMPORTANT!

Selecting the E12-X (E12-DX) setup enables a combination of one E12 (E12-D) and one E15X-SUB to be driven by the respective D12 or D6 channel.

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

### Active operation

Select the setup E15-SUB to drive E15X-SUB in active mode. E-Series full range cabinets should now be operated in CUT mode to increase the system headroom. Within the D12 amplifier the E15-SUB setup is available in "Dual Channel" and "Mix TOP/SUB" mode.

### IMPORTANT!

Selecting the E15-SUB setup enables up to two E15X-SUB loudspeakers to be driven by the respective channel.

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

### 100 Hz circuit

If the 100 Hz circuit is selected the upper operating frequency of the system is reduced from 140 Hz to 100 Hz. It can be used when actively driven E15X-SUB subwoofers are used to supplement E-Series cabinets operated in full range mode like e.g. in a distributed sound system. The 100 Hz mode can also be used to compensate for close coupling between the E15X-SUB and E-Series cabinets operated in CUT mode like e.g. in a drum fill setup.

## Operation with E-PAC

Selecting E15-SUB mode enables the E-PAC to drive one E15X-SUB loudspeaker.

The 100 Hz setting is available. The characteristics is explained under the previous section "Operation with D12 or D6".

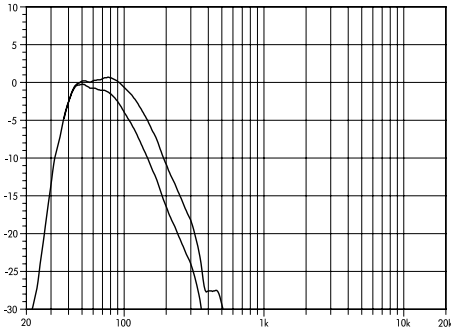
## Technical specifications

### E15X-SUB system data

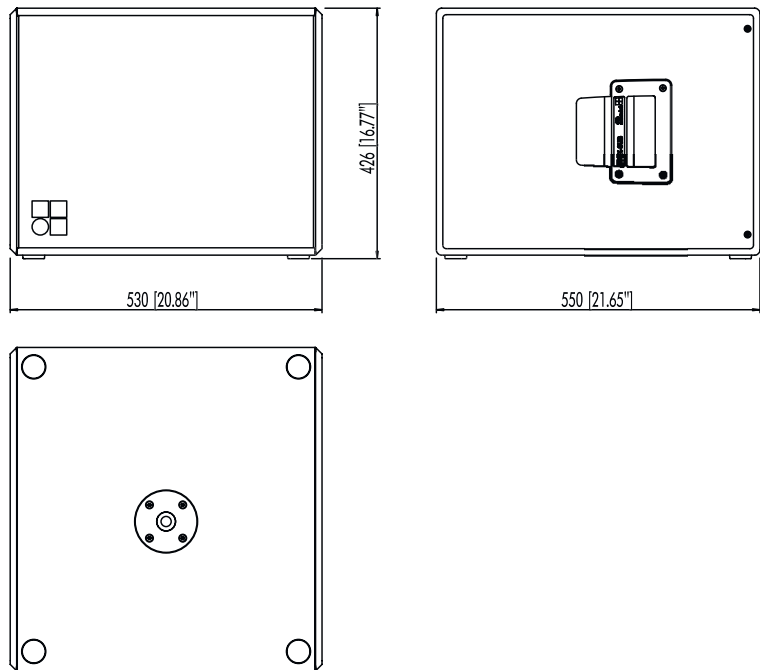
Frequency response (-5 dB standard).....37 Hz ... 140 Hz  
 Frequency response (-5 dB 100 Hz mode).....37 Hz ... 100 Hz  
 Max. sound pressure (single cabinet, 1 m, free field) with D12 ..... 130 dB  
 Max. sound pressure (single cabinet, 1 m, free field) with D6 ..... 127 dB  
 (SPLmax peak, pink noise test signal with crest factor of 4)  
 Polarity to controller INPUT (XLR pin 2: +/3: -).....LF: +

### E15X-SUB subwoofer

Nominal impedance.....8 ohms  
 Power handling capacity (RMS / peak 10 ms).....300/1600 W  
 Components.....15" driver  
 .....Passive crossover network  
 Connections.....2 x EP5  
 .....optional 2 x NL4  
 Pin assignments.....EP5: 3/4, SenseDrive pin 5  
 .....NL4: 2+/2-  
 Weight.....24 kg (53 lb)



**Fig. 3: E15X frequency response, standard and 100 Hz settings**



**Fig. 4: E15X-SUB cabinet dimensions in mm [inch]**

## Manufacturers declarations



### EU conformity of loudspeakers (CE symbol)

This declaration applies to loudspeakers manufactured by d&b audiotechnik AG and includes the types listed in the table below:

#### **d&b E15X-SUB loudspeaker, Z0615**

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 following 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).

### 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.

