

E1

Data Sheet

Safety precautions

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 loading capacity of the accessories as specified in our "Rigging accessories" manual.

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.

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.

WARNING!

CAUTION!

General Information

E1 Data Sheet

Version 1.0 E, 05/2001, D2070.E.01

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The information presented in this document is, to the best of our knowledge, correct. We will however not be held responsible for the consequences of any errors or omissions.

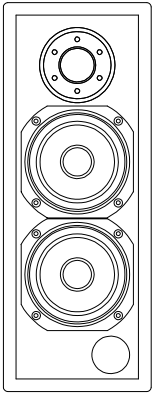
Technical specifications, weights and dimensions should always be confirmed with d&b audiotechnik AG prior to inclusion in any additional documentation.

d&b audiotechnik AG

Eugen-Adolff-Strasse 134, D-71522 Backnang

Telephone +49-7191-9669-0, Fax +49-7191-95 00 00

E1



The E1 cabinet is a full range, two way bass-reflex enclosure. Fitted with two 5" LF drivers passively connected to a ring radiator with a 60° conical dispersion.

The E1 cabinet is constructed from marine plywood with 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. A connector plate with two parallel wired Speakon connectors, together with M8 threaded inserts for mounting brackets on each panel allow the E1 to be mounted in almost any position.

The outstanding feature of the E1 is its neutral sound balance coupled with an extraordinarily high output capability for a cabinet of such a size. The E1 frequency response covers a 75 Hz to 15 kHz band making it extremely versatile and ideal for use in near field, delay, effects and ultra compact monitor.

Used with an auxiliary subwoofer system, the E1 can also easily reproduce high level music programs. Suitable subwoofers are E12-SUB, E18-SUB or C7-SUB.

CAUTION!

Only operate E1 loudspeakers with a d&b P1200A mainframe fitted with E1 controller modules or a d&b E-PAC version 3 in E1 configuration, otherwise there is a risk of damaging the loudspeaker components.

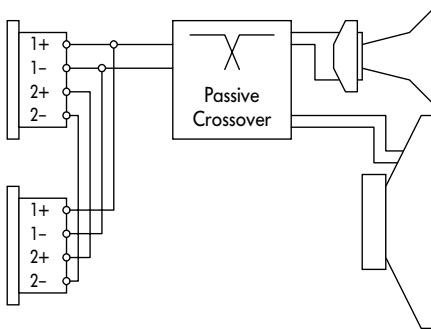
Connections

The E1 cabinet is fitted with a pair of Speakon-NL4 connectors. All four pins of both connectors are wired in parallel. The E1 uses the pin assignments 1+/1-. Pins 2+/2- are designated to active d&b subwoofers. Using one connector as the input, the second connector allows for direct connection to additional loudspeakers.

The connector plate is fitted to the E1 rear panel.

Operation with P1200A

Up to four E1 loudspeakers can be driven by each P1200A power amplifier channel. Fitting one E1-CO and one subwoofer controller module allows a single mainframe to drive four E1 and two active subwoofer cabinets (E18-SUB or C7-SUB). All cabinets can be linked together locally and fed by a single four-wire cable from either mainframe output connector.



Connector wiring

E1 controller module switches

CUT switch and indicator

Set to CUT, a high pass filter with a 110 Hz cut-off frequency is inserted in the controller signal path. The yellow CUT LED illuminates. The E1 system is now configured for use with d&b C or E-Series active subwoofers.

Operation with E-PAC (only possible with E-PAC version 3 with display)

To drive E1 cabinets the E-PAC has to be configured to E1 mode.

For an E-PAC version 3, the configuration is set via a front panel digital rotary encoder in conjunction with an LCD.

The CUT and HFA settings are available. The characteristics of the CUT setting is explained on the previous page under the section "E1 controller module switches".

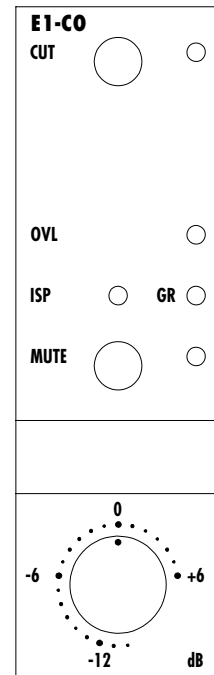
The E-PAC can drive up to two E1 cabinet at an output power of 300 watts.

LO IMP mode allows the E-PAC to drive four E1 cabinets with a 6 dB reduction of input level to the speakers.

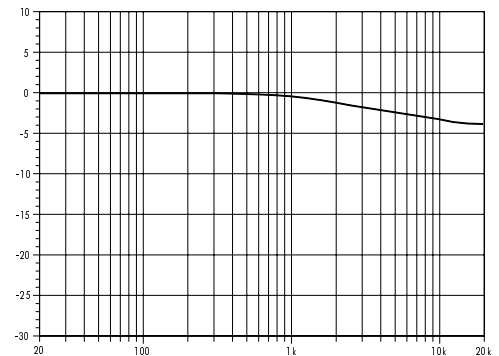
HFA setting

In HFA mode (High Frequency Attenuation), the HF response of the E1 system is rolled off. The yellow HFA LED illuminates. The HFA circuit configures the E1 loudspeakers to provide a natural, balanced frequency response when a unit is placed close to listeners in near field or delay use.

High Frequency Attenuation begins gradually at 1 kHz, dropping by approximately 3 dB at 10 kHz. This roll off mimics the decline in frequency response experienced when listening to a system from a distance in a typically reverberant room or auditorium.



Controls on E1 controller module



Frequency response correction of HFA circuit

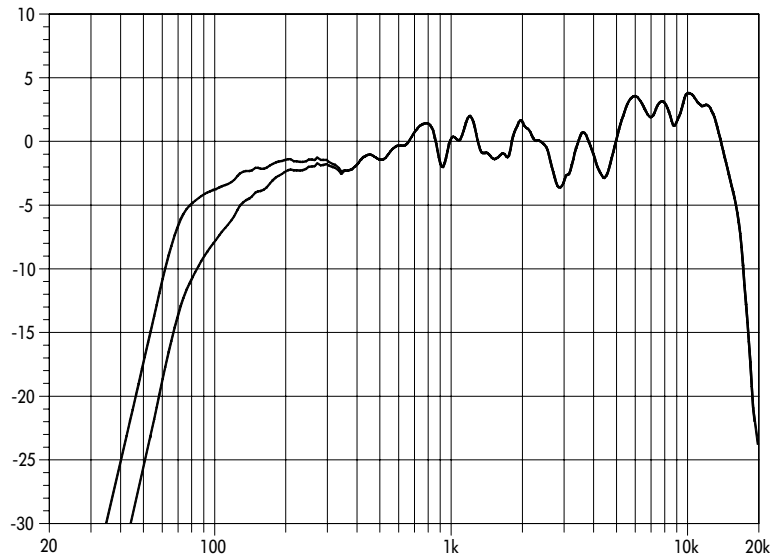
Technical specifications

E1 system data

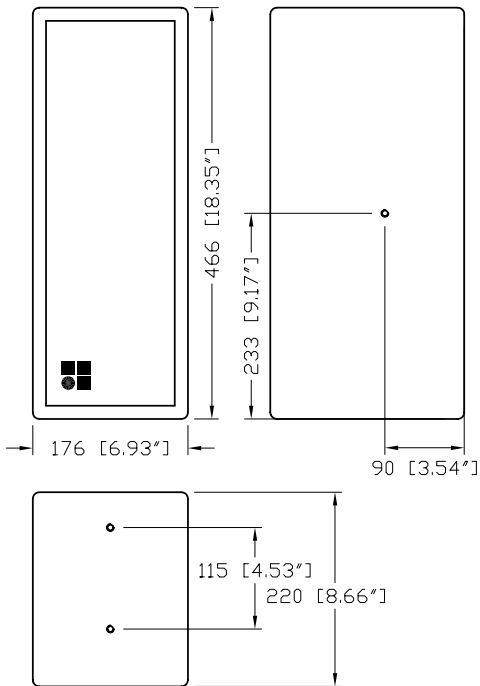
Frequency response (-5 dB).....	75 Hz ... 15 kHz
Max. sound pressure (1 m, free field)	118 dB (SPLmax peak, pink noise test signal with crest factor of 4)
Input level (SPLmax).....	+7 dBu
Input level (100 dB-SPL / 1 m).....	-8 dBu
Polarity to controller INPUT (XLR pin 2: + / 3: -)	LF: + / HF: -

E1 loudspeaker

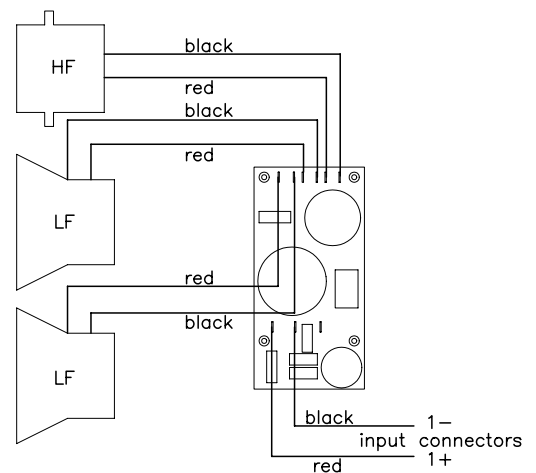
Nominal impedance	16 ohms
Power handling capacity (RMS / peak 10 ms).....	100 / 400 W
Nominal dispersion angle (hor. x vert.).....	60° conical
Connections	2 x Speakon-NL4
Pin assignments	1+ / 1-
Weight	10.4 kg (23 lb)



E1 frequency response, standard and CUT switch settings



E1 cabinet dimensions in mm [inch]



E1 wiring diagram

