

J-INFRA

Manual (1.0 EN)



Symbols on the equipment

Please refer to the information in the operating manual.

WARNING!
Dangerous voltage!

Contents

Safety precautions.....	3
Information regarding use of loudspeakers.....	3
J-INFRA.....	4
Connections.....	4
Operation with D12.....	5
Technical specifications.....	6
Manufacturer's Declarations.....	7
EU conformity of loudspeakers (CE symbol).....	7
WEEE Declaration (Disposal).....	7

General Information

J-INFRA Manual

Version 1.0 EN, 12/2008, D2984.EN .01

Copyright © 2008 by d&b audiotechnik GmbH; all rights reserved.

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.

d&b audiotechnik GmbH
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.

J-INFRA

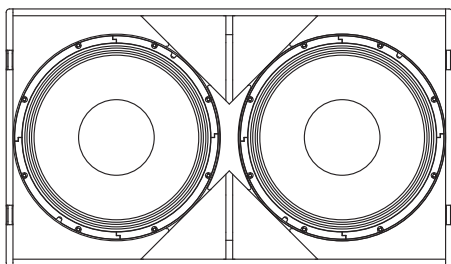


Fig. 1: J-INFRA loudspeaker

The J-INFRA is the cardioid infra subwoofer for the J-Series. It can be used to supplement J-Series systems consisting of J8, J12 and J-SUB cabinets in various combinations. It extends the frequency response of a J-Series system down to 27 Hz

J-INFRA cabinets can be used ground stacked in a conventional L/R setup as well as arranged in a subwoofer array. One J-INFRA cabinet provides additional very low frequency energy for two J-SUB subwoofers.

A detailed description of planning and designing J arrays is given in the technical information "TI 385 J-Series and Q-Series system design, d&b ArrayCalc" which is provided with the J Flying frame and the d&b ArrayCalc software.

The J-INFRA cabinet is an actively driven 2-way bass-reflex design housing three long excursion neodymium 21" drivers, two drivers face to the front while one driver radiates to the rear of the cabinet.

Front and rear drivers are driven by separate D12 channels and operate in independent bass reflex chambers. Through its cardioid dispersion pattern this setup avoids unwanted energy behind the system and greatly reduces the reverberant field at low frequencies providing highest accuracy in low frequency reproduction. J-INFRA cabinets have to be arrayed with a minimum distance of 60 cm (2 ft) between adjacent cabinets.

The J-INFRA cabinet is constructed from marine plywood and has an impact and weather protected PCP (Polyurea Cabinet Protection) finish. The front and rear of the loudspeaker cabinet are protected by a rigid metal grill. The side panels incorporate eight handles. Two runners extend from the rear to the front panel of the cabinet protecting the bottom panel against scratching. Two correspondingly shaped recesses are incorporated in the top panel of each cabinet to accept these runners and prevent cabinet movement when stacking J-INFRA's. The cabinet front is fitted with four catches for securing an optional transport lid E7920.

Connections

The J-INFRA cabinet is fitted with a single EP5 connector. It uses the pin assignments 1/2 for the front drivers. Pins 3/4 drive the rear driver. Pin 5 is used for SenseDrive for the front drivers.

The J-INFRA can be supplied with an NL8 connector as an option. Pin equivalents of EP5 and NL8 connectors are listed in the table below.

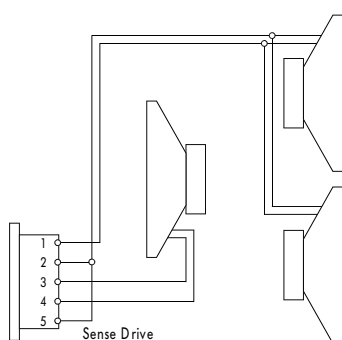


Fig. 2: Connector wiring

	LF + Front	LF - Front	LF + Rear	LF - Rear	SenseDrive Front
EP5	1	2	3	4	5
NL8	1+	1-	4+	4-	3-

Operation with D12

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

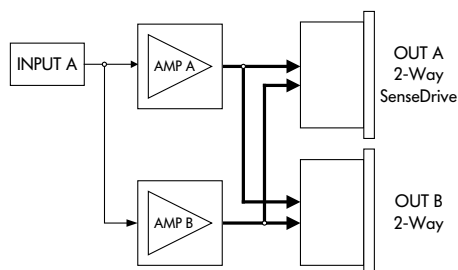


Fig. 3: D12 Input/Output routing 2-Way Active mode

Select the controller setup J-INFRA.

Within the D12 amplifier this is available in "2-Way Active" mode.

The D12 drives a single J-INFRA cabinet.

The two channels of the D12 are tuned to create a cardioid dispersion pattern thus providing maximum rejection to the rear.

The input signal is fed to INPUT A, while the input signal is routed (linked) to INPUT B internally.

To enable SenseDrive the loudspeaker cabinet has to be connected to output A of the D12 amplifier.

Controller settings

When J-INFRA cabinets are placed close to J-SUB cabinets the standard mode is selected.

70 Hz circuit

When J-INFRA cabinets are located remotely from J-SUB cabinets there is less coupling between the systems. Selecting the 70 Hz circuit compensates for this effect by extending the upper frequency limit to 70 Hz.

HCD circuit

Selecting HCD (Hypercardioid) optimizes the tuning of front and rear channels for a maximum rejection at the left and right sides behind the cabinet providing a hypercardioid dispersion pattern. This characteristic is particularly useful for a setup with subwoofers stacked at the left and right sides of a stage providing minimum interference onstage.

HCD mode can be used either freely radiating or in front of walls. The minimum distance to rear walls is provided by the wheels on the cabinet back. Even in HCD mode adjacent J-INFRA have to be at least 60 cm (2 ft) apart.

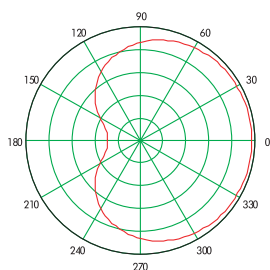


Fig. 4: Cardioid polar pattern

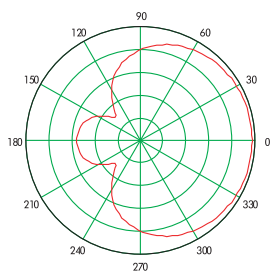


Fig. 5: Hypercardioid polar pattern

Technical specifications

J-INFRA system data

Frequency response (-5 dB standard).....	27 Hz ... 60 Hz
Frequency response (-5 dB 70 Hz mode).....	27 Hz ... 70 Hz
Max. sound pressure (single cabinet, 1 m, free field).....	141 dB (SPLmax peak with music program)

J-INFRA loudspeaker

Nominal impedance front/rear.....	3/6 ohms
Power handling capacity front (RMS / peak 10 ms).....	1200/4800 W
Power handling capacity rear (RMS / peak 10 ms).....	600/2400 W
Components.....	3 x 21" driver
Connections.....	1 x EP5(optional 1 x NL8)
Pin assignments	
EP5.....	1: Front+/2: Front-/3: Rear+/4: Rear-/5: SenseDrive front
NL8.....	1+: Front+/1-: Front-/4+: Rear+/4-: Rear-/3-: SenseDrive front
Weight.....	152 kg (335 lb)

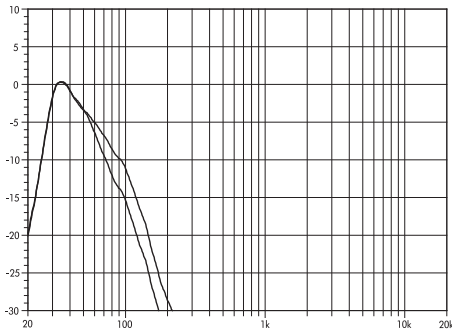


Fig. 6: J-INFRA frequency response, standard and 70 Hz settings

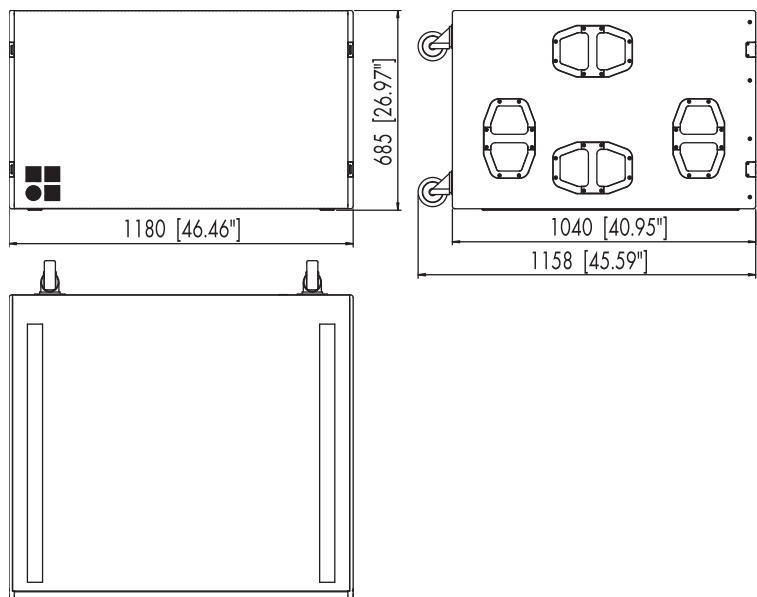


Fig. 7: J-INFRA cabinet dimensions in mm [inch]

Manufacturer's Declarations



EU conformity of loudspeakers (CE symbol)

This declaration applies to

- **J-INFRA loudspeaker Z1000**

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.

