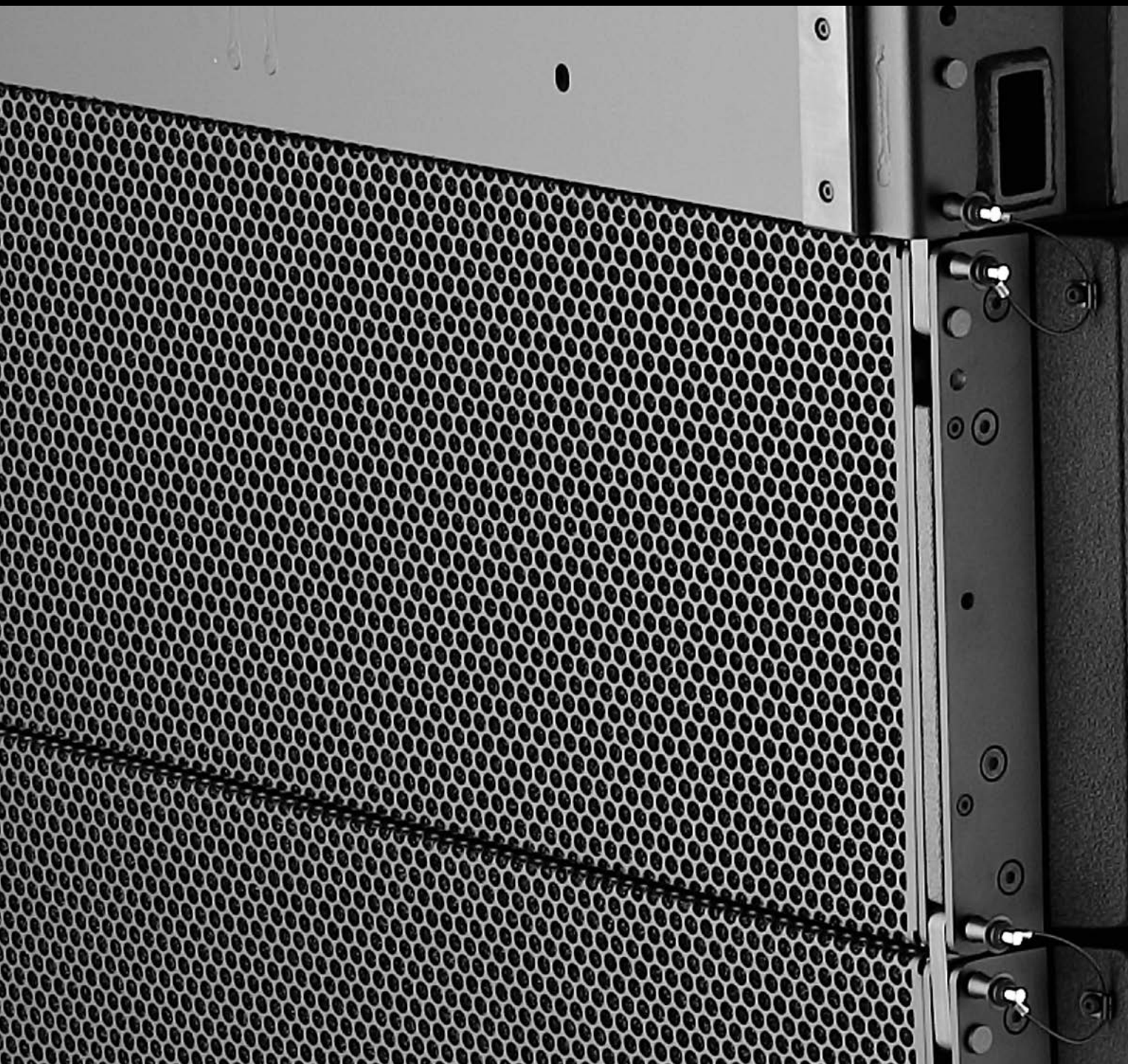
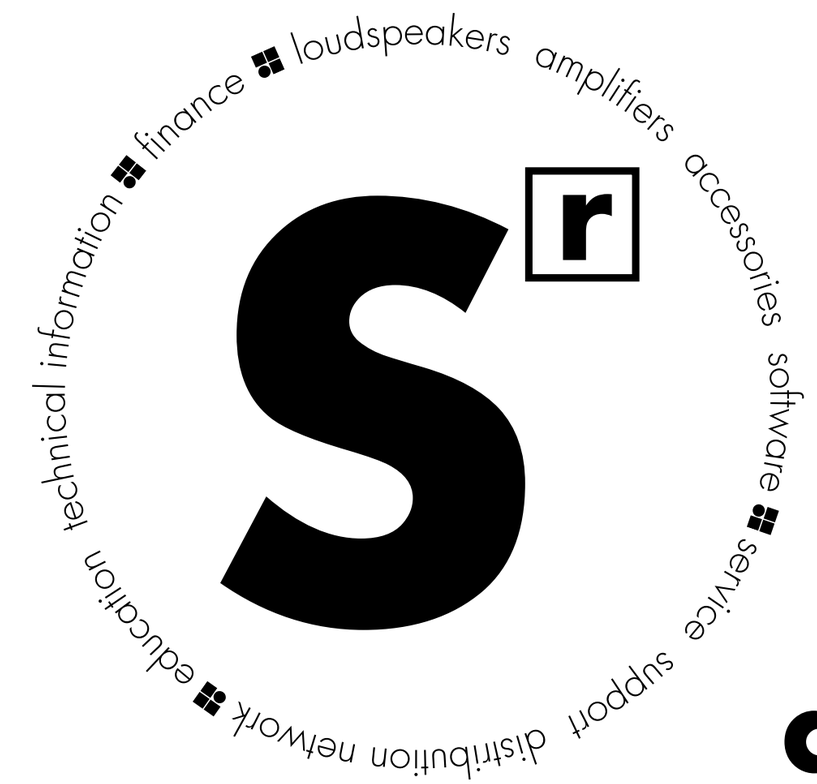
J

J-Series



Contents



d&b System reality

As the name implies a d&b audiotechnik system is not just a loudspeaker. Nor is it merely a sum of the components: loudspeakers, amplifiers, accessories and software. Right from the outset the d&b audiotechnik approach was to build integrated sound reinforcement systems that actually are more than the combination of parts: an entirety where each fits all. Every element is tightly specified, precisely aligned and carefully integrated to achieve maximum efficiency. For ease of use, all the user-definable parameters are integrated, allowing the possibility of adjustment, either via remote control surfaces or directly on the amplifiers. Neutral sound characteristics leave the user all the freedom needed to realise whatever the brief. At the same time d&b offers integrated finance, service and support, a knowledgeable distribution network, education and training as well as technical information, so the same optimal acoustic result is achieved consistently by every system anywhere, at any time. In reality: the d&b System reality.

The **J-Series** line array system is designed specifically for use in large-scale sound reinforcement applications. The crystal clear and detailed audio performance, smooth and even frequency response over distance, high dynamic bandwidth, power and headroom capabilities all make it a suitable choice for the far reaching reinforcement of any sound genre. Control of dispersion behaviour, as well as keeping the size and weight of systems to an absolute minimum, are both areas in which the J-Series excels.

All the components needed to suspend the loudspeakers within the bespoke three point J-Series flying system are integrated into the cabinets ensuring speedy deployment providing incredibly quick and easily configurable array solutions in all the intended large-scale sound reinforcement applications, even in the most arduous situations.

The J-Series

The **J8** and **J12** loudspeakers are acoustically matched and constructed to be mechanically compatible sharing the same vertical directivity, size, footprint, weight, rigging and driver complement. The 3-way design featuring two 12" LF drivers, one hornloaded 10" MF driver and two 1.4" exit HF compression drivers with 3" voicecoils mounted to a dedicated waveshaping device. The symmetrical dipolar arrangement of the neodymium LF drivers around the centrally mounted coaxial MF and HF components allows a smooth overlap of the adjacent frequency bands in the crossover design.
The 80° horizontal constant directivity dispersion pattern of the J8 is maintained down to 250 Hz and its high output capability can cover a distance range of over 100 m (330 ft), depending on the climatic conditions. The J12 has a wider horizontal dispersion pattern of 120° maintained down to 250 Hz.

The **J-SUB** shares the same width as the J8 and J12 loudspeakers and is equipped with compatible flying fittings. The bass-reflex design uses three 18" high excursion drivers, one of which radiates to the rear to produce cardioid or hypercardioid subwoofer performance to avoid unwanted energy behind the system.
The **J-INFRA** extends the bandwidth of a J-Series system down to 27 Hz as well as increasing its headroom and is intended only for ground stacked setups. The bass-reflex design uses three 21" high excursion drivers, one of which radiates to the rear to produce cardioid or hypercardioid subwoofer performance to avoid unwanted energy behind the system.
Both the J-SUB and J-INFRA can be deployed in conventional left and right ground stacked setups as well as in distributed sub arrays to achieve an even venue specific coverage pattern.
All J-Series loudspeakers are finished with a PCP (Polyurea Cabinet Protection) coating that provides resistance for mobile systems to the adverse effects on cabinets in changing ambient outdoor conditions.

J8, J12 loudspeaker

J subwoofer

J-INFRA subwoofer

The d&b software offering aides the entire system setup process, from the simulation and planning of the loudspeaker systems, to the remote control and monitoring of the system functions during the event, followed by service functionality to verify system performance prior to de-rigging. The **ArrayCalc** simulation software allows the virtual optimization of loudspeaker line arrays, point source and column loudspeakers as well as subwoofers and their adjustment to venue conditions. Using the R1 export function, a project file containing the simulation data, including the respective amplifier settings is generated for deployment in the **R1** Remote control software. R1 then feeds the settings to the amplifiers from a central location to allow rapid verification and fine adjustment on site. Service functions enable firmware updates of the amplifiers as and when these are available.

The d&b **D12** dual channel and the **D80** four channel amplifiers realize the complete system and incorporate d&b loudspeaker specific configuration information. They provide different power ranges and have analog and digital signal inputs and links. These devices are specially designed and manufactured by d&b utilizing Digital Signal Processing and include switchable functions for precisely tailoring system response for a wide variety of applications. Delay capabilities and equalization on each channel of every amplifier reduce the need for external processing devices, with user definable 4-band parametric EQ for the D12 compared to the two 16-band equalizers incorporated into the D80.

D12 amplifier

D80 amplifier

The J8 loudspeaker

J8 loudspeaker

The J8 loudspeaker is a line array module designed for long throw applications. Its 3-way design uses an active crossover between the low and mid and a passive crossover between the mid and high frequencies. J8 is completely symmetrical horizontally with two 12" neodymium low frequency drivers placed to the outsides in a dipolar arrangement. Its hornloaded coaxial mid and high frequency section is mounted in the centre of the loudspeaker. The mid frequency horn uses a 10" driver, while the high frequency section consists of two 1.4" exit HF compression drivers with 3" voicecoils mounted to a dedicated waveshaping device. The cylindrical wave segments produced couple coherently in the vertical plane. This results in an exceptional 80° horizontal constant directivity dispersion control nominally being maintained down to 250 Hz.

The mechanical and acoustical design enables flown vertical columns of up to twenty-four loudspeakers to be suspended using vertical splay angles between them of 0° to 7° with a 1° resolution. The J8 is acoustically and mechanically compatible with the J12 loudspeaker. It can be used in columns of purely J8 loudspeakers or combined with J12s and/or with J-SUBs.

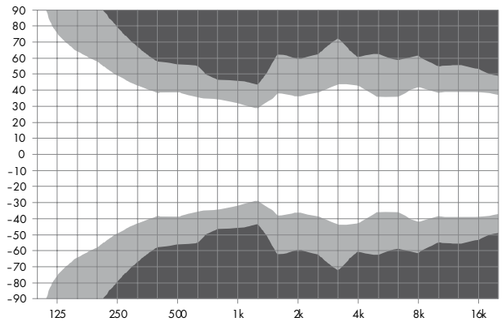
The J8 cabinet is constructed from marine plywood and has an impact and weather protected PCP (Polyurea Cabinet Protection) finish. The front of the loudspeaker cabinet is protected by a rigid metal grill and the side and rear panels incorporate four handles.

System data

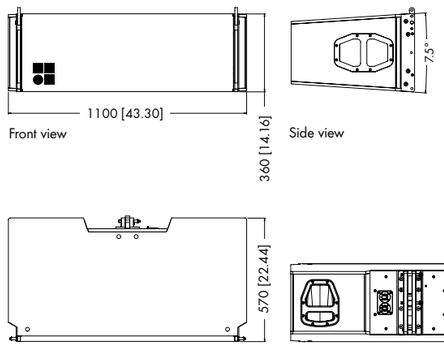
Frequency response (–5 dB standard) ..... 48 Hz - 17 kHz
Frequency response (–5 dB CUT mode) ..... 85 Hz - 17 kHz
Max. sound pressure (1 m, free field)[1] .....
with D12 ..... 145 dB
with D80 ..... 145 dB

Loudspeaker data

Nominal impedance LF/MHF ..... 6/12 ohms
Power handling capacity LF (RMS/peak 10 msec) . 500/2000 W
Power handling capacity MHF (RMS/peak 10 msec) 200/800 W
Nominal dispersion angle (horizontal) ..... 80°
Splay angle settings ..... 0 - 7° (1° increment)
Components ..... 2 x 12" driver/1 x 10" driver
..... 2 x 1.4" exit compression driver
..... passive crossover network
Connections ..... 2 x NLT4 F/M
..... optional 2 x EP5 or 2 x NL8
Weight ..... 60 kg (132 lb)



J8 horizontal dispersion characteristics[2]



J8 cabinet dimensions in mm (inch)

1 Broadband measurement, pink noise, crest factor 4, peak measurement, linear weighting
2 Dispersion angle vs frequency plotted using lines of equal sound pressure (isobars) at –6 dB and –12 dB

The J12 loudspeaker

J12 loudspeaker

The J12 loudspeaker is a line array module designed for long throw applications. Its 3-way design uses an active crossover between the low and mid and a passive crossover between the mid and high frequencies. J12 is completely symmetrical horizontally with two 12" neodymium low frequency drivers placed to the outsides in a dipolar arrangement. Its hornloaded coaxial mid and high frequency section is mounted in the centre of the loudspeaker. The mid frequency horn uses a 10" driver, while the high frequency section consists of two 1.4" exit HF compression drivers with 3" voicecoils mounted to a dedicated waveshaping device. The cylindrical wave segments produced couple coherently in the vertical plane. This results in an exceptional 120° horizontal constant directivity dispersion control nominally being maintained down to 250 Hz.

The mechanical and acoustical design enables flown vertical columns of up to twenty-four loudspeakers to be suspended using vertical splay angles between them of 0° to 7° with a 1° resolution. The J12 is acoustically and mechanically compatible with the J8 loudspeaker. It can be used in columns of purely J12 loudspeakers or combined with J8s and/or with J-SUBs.

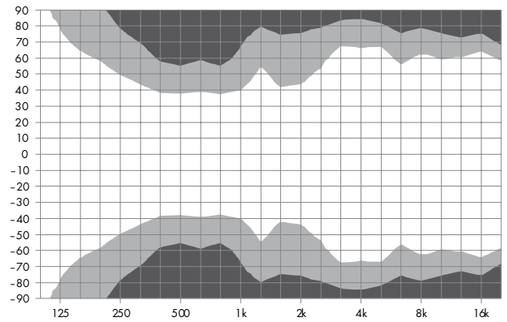
The J12 cabinet is constructed from marine plywood and has an impact and weather protected PCP (Polyurea Cabinet Protection) finish. The front of the loudspeaker cabinet is protected by a rigid metal grill and the side and rear panels incorporate four handles.

System data

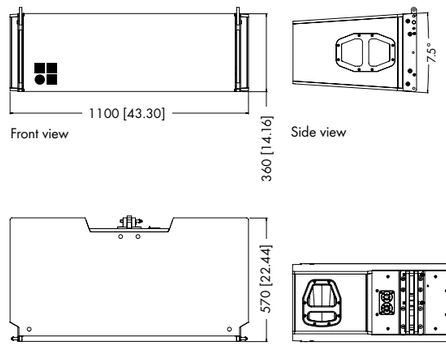
Frequency response (–5 dB standard) ..... 48 Hz - 17 kHz
Frequency response (–5 dB CUT mode) ..... 85 Hz - 17 kHz
Max. sound pressure (1 m, free field)[1] .....
with D12 ..... 143 dB
with D80 ..... 143 dB

Loudspeaker data

Nominal impedance LF/MHF ..... 6/12 ohms
Power handling capacity LF (RMS/peak 10 msec) . 500/2000 W
Power handling capacity MHF (RMS/peak 10 msec) 200/800 W
Nominal dispersion angle (horizontal) ..... 120°
Splay angle settings ..... 0 - 7° (1° increment)
Components ..... 2 x 12" driver/1 x 10" driver
..... 2 x 1.4" exit compression driver
..... passive crossover network
Connections ..... 2 x NLT4 F/M
..... optional 2 x EP5 or 2 x NL8
Weight ..... 60 kg (132 lb)



J12 horizontal dispersion characteristics[2]



J12 cabinet dimensions in mm (inch)

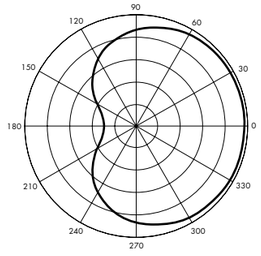
1 Broadband measurement, pink noise, crest factor 4, peak measurement, linear weighting
2 Dispersion angle vs frequency plotted using lines of equal sound pressure (isobars) at –6 dB and –12 dB

The J subwoofer

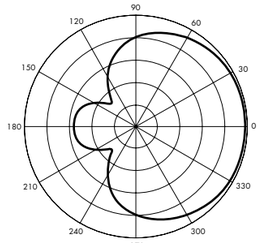
J subwoofer
The J-SUB is the subwoofer for the J-Series. It is an actively driven 2-way bass-reflex design housing three long excursion neodymium 18" drivers, two drivers face to the front and one driver to the rear. The cardioid dispersion pattern resulting from this arrangement avoids unwanted energy behind the system that greatly reduces the excitation of the reverberant field at low frequencies and provides the greatest accuracy of low frequency reproduction.
The J subwoofer can be used to supplement J8 and J12 loudspeakers in various combinations, ground stacked or flown, either integrated on top of a J8/J12 array or as a separate column. Cabinets are mechanically connected using the rigging links on both sides of the cabinet front, and with a central rigging link at the rear of the cabinet.
The J-SUB 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 and the side panels incorporate eight handles. Four 100 mm wheels are mounted at the rear.

System data
Frequency response (–5 dB standard) ..... 32 - 100 Hz
Frequency response (–5 dB INFRA mode) ..... 32 - 70 Hz
Max. sound pressure (1 m, free field)[1] .....
with D12 ..... 138 dB
with D80 ..... 139 dB

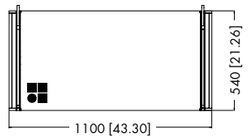
Loudspeaker data
Nominal impedance front/rear..... 4/8 ohms
Power handling capacity (RMS/peak 10 msec) .....
Front ..... 800/3200 W
Rear ..... 400/1600 W
Components ..... 3 x 18" driver
Connections ..... 1 x NLT4 F
..... optional 1 x EP5 or 1 x NL8
Weight..... 106 kg (234 lb)



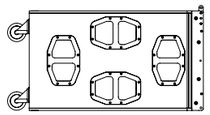
Standard cardioid polar pattern

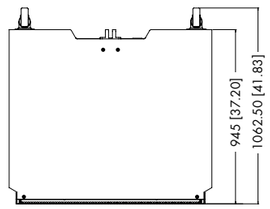


Hypercardioid polar pattern

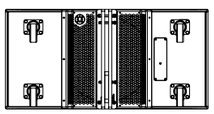


Front view


Side view



Top view


Rear view

J-SUB cabinet dimensions in mm (inch)

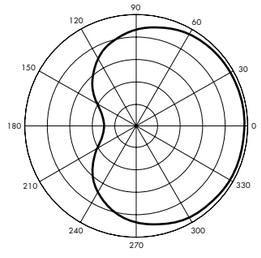
[1] SPL_{max} peak with music program

The J-INFRA subwoofer

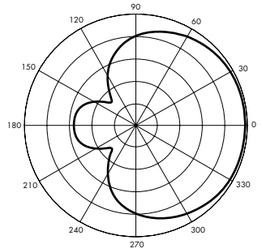
J-INFRA subwoofer
The J-INFRA is the INFRA subwoofer for the J-Series. It is an actively driven 2-way bass-reflex design and extends the frequency response of a J-Series system down to 27 Hz. It has two bass-reflex chambers containing three 21" drivers, two facing forward and one facing backwards. The cardioid dispersion pattern resulting from this arrangement avoids unwanted energy behind the system that greatly reduces the excitation of the reverberant field at low frequencies and provides the highest accuracy of low frequency reproduction.
The J-INFRA can only be used in ground stacked configurations in conventional left/right setups as well as arranged in a subwoofer array.
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 and the side panels incorporate eight handles. Four 100 mm wheels are mounted at the rear.

System data
Frequency response (–5 dB standard) ..... 27 - 60 Hz
Frequency response (–5 dB 70 Hz mode) ..... 27 - 70 Hz
Max. sound pressure (single cabinet, 1 m, free field)[1] .....
with D12 ..... 141 dB
with D80 ..... 144 dB

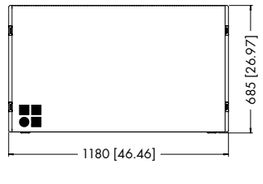
Loudspeaker data
Nominal impedance front/rear..... 3/6 ohms
Power handling capacity front (RMS/peak 10 msec).....
1 2 0 0 / 4 8 0 0 W
Power handling capacity rear (RMS/peak 10 msec) . 600/2400 W
Components ..... 3 x 21" driver
Connections ..... 1 x NLT4 F
..... optional 1 x EP5 or 1 x NL8
Weight..... 152 kg (335 lb)



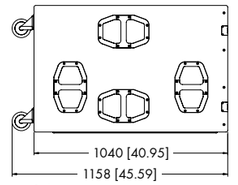
Standard cardioid polar pattern



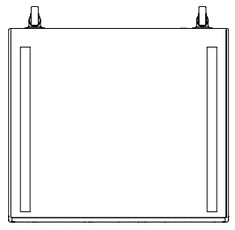
Hypercardioid polar pattern

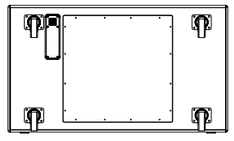


Front view



Side view


Top view

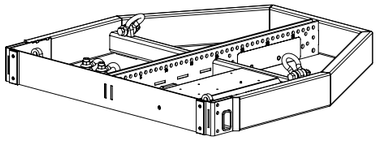

Rear view

J-INFRA cabinet dimensions in mm (inch)

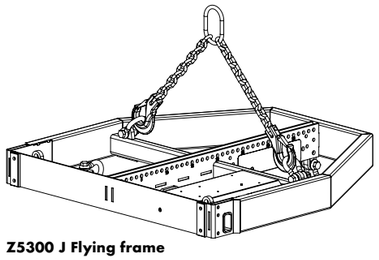
[1] SPL_{max} peak with music program

The J-Series rigging system

Safety approval
d&b loudspeakers and accessories are designed for setup and use within situations requiring compliance with the provisions and directives of BGV C1 Rule for the Prevention of Accidents.

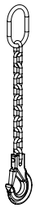


Z5300
J Flying frame
For twenty-four J8/J12 loudspeakers or fourteen J subwoofers maximum

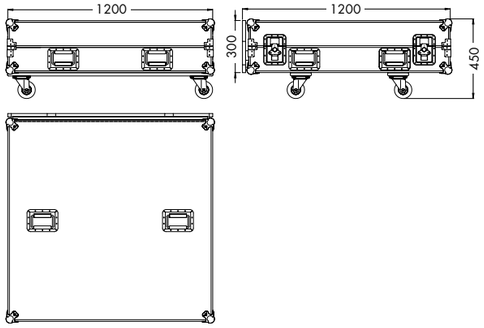


Z5300 J Flying frame
supplied with
Z5303 J Safety chainset
2 x J Load adapter
2 x J Front links
2 x Locking pinsets 10 mm
1 x Locking pinset 11 mm

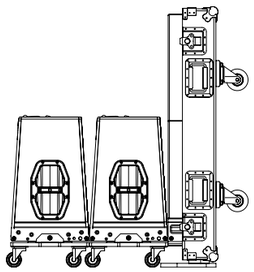
Z5303
J Safety chainset



Z5305
J Hoist connector chain



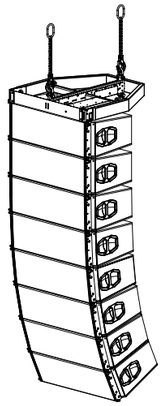
E7441 Touring case 1 x J Flying frame



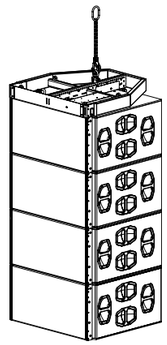
J-Series rigging with
E7441 Touring case

The J-Series rigging examples

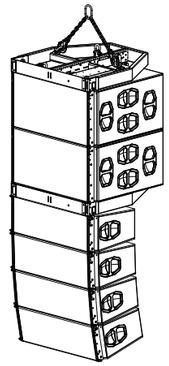
These rigging examples are for illustration only. For further information please refer to the TI 385 d&b Line array design and J-Series Rigging manual, which are available for download at www.dbaudio.com.



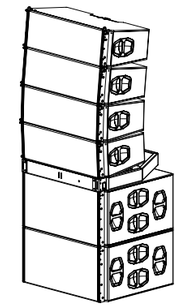
J8/J12 array with
Z5300 J Flying frame
2 x Z5305 J Hoist connector chains



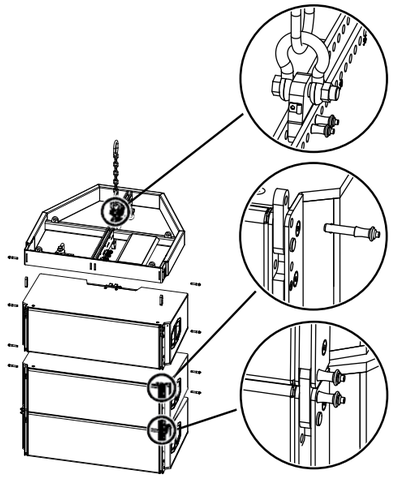
J-SUB array with
Z5300 J Flying frame
Z5305 J Hoist connector chain



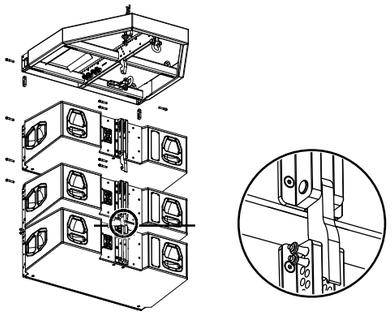
J-Series mixed array with
2 x Z5300 J Flying frames
Z5303 J Safety chainset



J-Series ground stack with
Z5300 J Flying frame



J-Series rigging system



The d&b ArrayCalc simulation software

The d&b ArrayCalc simulation software is the simulation tool for d&b line arrays, column and point source loudspeakers as well as subwoofers. This is a comprehensive toolbox for all tasks associated with acoustic design, performance prediction, alignment, rigging and safety parameters. For safety reasons d&b line arrays must be designed using the d&b ArrayCalc simulation software.

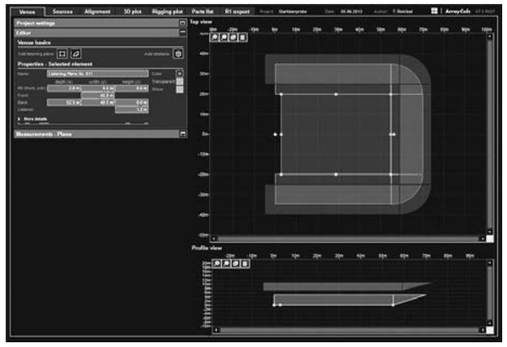
d&b ArrayCalc is available as a native stand-alone application for both Microsoft Windows[1] (Win7 or higher) and Mac OS X[2] (10.6 or higher) operating systems. In combination with the d&b Remote network, this can significantly reduce setup and tuning time in mobile applications, and allows for precise initial simulations when planning installations.

Listening planes in three dimensions can be defined, creating a representation of the audience areas in a given venue. This includes areas such as typical listening planes, arenas, balconies, side stalls, and in the round. Special functions assist in obtaining accurate dimensions with laser distance finders and inclinometers.

Acoustic obstacles, such as arena video score boards can be added to a model.

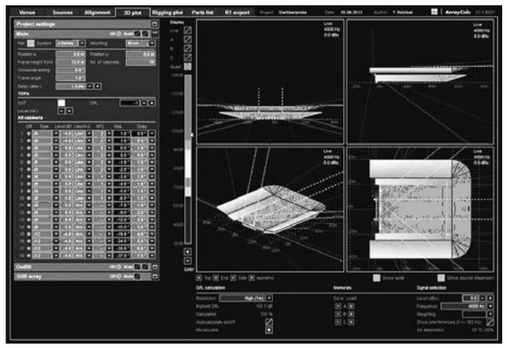
The ArrayCalc R1 export function produces a project file for the R1 Remote control software. Complete details of the system simulated in ArrayCalc are generated, including loudspeakers, amplifiers, remote IDs, groups and all configuration information. This workflow sequence removes the need to manually transfer data from one software program to the other. EASE and DXF data export capabilities are also available.

Further information is provided in the d&b Amplifier and Software brochure which is available for download at www.dbaudio.com.



Venue editor

Sources, array



3D Plot quad

The d&b Remote network

The remote control capability of the d&b Remote network enables central control and monitoring of a complete d&b loudspeaker system from anywhere in the network, be it from a computer in the control room, at the mix position, or on a wireless tablet in the auditorium. This central access to all functions through the d&b Remote network, to controls as well as detailed system and device diagnostics information, unlocks the full potential of the d&b system approach. In a typical user workflow, the d&b Remote network takes settings optimized in the ArrayCalc simulation software and applies these to all the amplifiers within the network. The importation of settings from ArrayCalc allows the system configuration to be quickly accomplished, providing more time for verification and fine tuning.

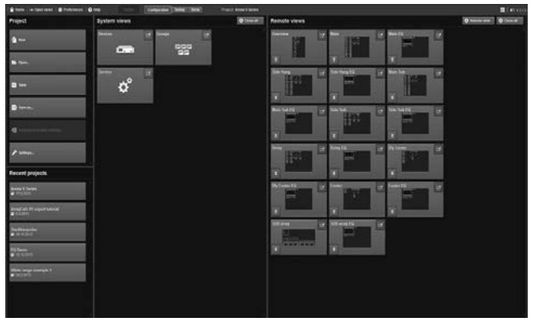
All features, functions and controls available on the front panel of d&b amplifiers may be remotely controlled and/or monitored using R1 Remote control software. This allows each channel of the amplifier to be controlled and enables the creation of groups of loudspeakers. When grouped together, a button or fader can control the overall system level, zone level, equalization and delay, power ON/OFF, MUTE, as well as loudspeaker specific function switches such as CUT/HFA/HFC and CPL. An offline mode is provided for preparation in advance of an event, without the amplifiers being present or connected.

For mobile applications, d&b System check verifies that the system performs within a predefined condition. Extensive facilities for storing and recalling system settings are provided allowing these to be repeated, as and when required. Project files can be easily adjusted for use with a different set of equipment at another location.

In installation projects system integrators can configure the d&b Remote network to offer access to different levels of control, tailored to the operational demands. For example, power ON/OFF for daily use, or more complex functionality for detailed control. Password protection is available to restrict access. Input and Load monitoring allow installation operators to ensure optimum performance at all times.

R1 Remote control software enables d&b amplifiers to be remotely controlled using both Ethernet and CAN-Bus in parallel. The software is optimized for use with touch screen, mouse and keyboard and runs on both Microsoft Windows[1] (Win7 or higher) and Mac OS X[2] (10.6 or higher) operating systems.

Further information is provided in the d&b Amplifier and Software brochure which is available for download at www.dbaudio.com.



Home

Remote in Configuration mode

Open views

1 Microsoft Windows is a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries

2 Mac OS is a trademark of Apple Inc., registered in the U.S. and other countries

The D12 and D80 amplifiers

Two decades have passed since d&b embarked on integrating Digital Signal Processing (DSP) into power amplifiers. It is over ten years since all d&b amplifiers used this technology and included analog and digital signal inputs, extensive loudspeaker control, configuration and protection functions, user definable equalization, delay and the all embracing remote control functionality as standard.

The d&b amplifiers sit right at the very heart of the d&b systems, providing sophisticated control capabilities as well as the power to efficiently drive d&b loudspeakers in whatever the particular application. The amplifiers are developed and manufactured by d&b and incorporate loudspeaker specific setups. Sophisticated protection circuits modelling thermal and mechanical driver behaviour are provided, resulting in the sustained reliability of d&b systems. Switchable functions for precisely tailoring system response in a wide variety of applications are also included, integrating complete loudspeaker system management into the amplifier. The digital elements are specified and constructed to achieve outstanding audio performance while maintaining a very low latency of 0.3 msec The amplifiers are designed specifically for use with d&b loudspeakers, have remote control, monitoring capabilities and switch mode power supplies. To simplify configuration, the output mode of the amplifier can be configured as Dual Channel, Mix TOP/SUB or 2-Way Active modes depending on the application. The user definable equalization and delay functions incorporated in each channel of all d&b amplifiers are intended for tuning in applications such as infills, frontfills or under balcony delays, without the need for external processors. A signal generator offering pink noise or a sine wave program is also incorporated for test and alignment purposes.

d&b amplifiers[1] contain functions to allow system status monitoring and protection features, increasing the longevity of d&b systems. They provide the d&b System check function, which is designed to verify the system performs within a predefined condition; this can be used to report the system condition after a show. Input monitoring can detect incoming pilot tones to verify the integrity of the signal path to the amplifier, while the Load monitoring function determines the status of the loudspeaker impedance. Both d&b System check and Load monitoring can determine the status of an LF or HF driver in systems with multiple elements, even if these are crossed over passively. Automatic and continuous impedance monitoring, along with Input monitoring are designed for incorporation in applications specified to the requirements of International Standard IEC 60849 'Sound Systems for Emergency Purposes'.

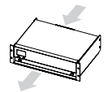
d&b amplifiers feature two control interfaces. Firstly, the front panel rotary encoder, combined with the display, provides full access to settings and functions. Secondly, by utilizing the d&b Remote network, the amplifiers can be remotely controlled and monitored from a virtual centre. Every amplifier channel can be assigned a unique channel and device name to simplify identification. The Wink function, which can be enabled remotely, flashes the display backlight to clearly identify specific amplifiers in a system. An integrated password protected LOCK function prevents unauthorized changes.

A powerCON[2] mains connector socket is fitted on the rear panel. The switch mode power supply of each amplifier incorporates mains overvoltage protection, inrush current limiting and loudspeaker protection at start up. Temperature and signal controlled fans cool the internal assemblies. d&b amplifiers offer analog and digital AES/EBU signal inputs, with link outputs for each channel. The AES/EBU link output carries a refreshed signal, while a power fail relay is incorporated to prevent interruption of the signal chain, in the event of a power failure.

The D12 amplifier incorporates d&b SenseDrive for accurate control of LF drivers in d&b loudspeakers driven 2-Way Active or in actively driven d&b subwoofers. When the D12 is fitted with EP5 connectors and appropriate 5-wire cabling, d&b SenseDrive can be used resulting in an extremely precise bass performance even at high levels. The LoadMatch function integrated within the D80 amplifier enables the electrical compensation of loudspeaker cable properties, without the need for an extra conductor. This results in an increased accuracy of audio reproduction over a bandwidth of up to 20 kHz preserving the tonal balance when cable lengths of up to 70 m (230 ft) are used.

Firmware updates containing new loudspeaker configurations or additional functions can be loaded to the amplifiers via the d&b Remote network.

Comparison of the D12 and D80 amplifiers

	D12	**D80**
User interface	Encoder/LC display	Encoder/colour TFT touchscreen
Output channels	2	4
Input channels	2 AES or analog	4 AES or analog
Latency	0.3 msec	0.3 msec
User equalizers (per channel)	4-band	2 x 16-band
Delay	340 msec/116.9 m	10 sec/3440 m
Rated output power	2 x 750 W into 8 ohms 2 x 1200 W into 4 ohms (THD+N < 0.1%)	4 x 2000 W into 8 ohms 4 x 4000 W into 4 ohms (THD+N < 0.5%, 12 dB crest factor)
Output routing	Dual Channel, Mix TOP/SUB 2-Way Active	Dual Channel, Mix TOP/SUB 2-Way Active
Output connectors	NL4/EP5/NL8	NL4/EP5 plus central NL8
Cable compensation	SenseDrive	LoadMatch
Mains voltage	100/200V or 120/230V	Wide range switch mode power supply
Weight (kg/lb)	13/28.7	19/42
Dimensions	3 RU x 19" x 353 mm	2 RU x 19" x 530 mm
Remote	CAN	OCA via Ethernet/CAN
Airflow		

1 At the time of print, certain functions required within applications specified to achieve compliance with IEC 60849 such as Input and Load monitoring are not implemented in the D80 amplifier, please contact your distributor for further information

2 powerCON® is a registered trademark of the Neutrik AG, Liechtenstein

The operation with D12 and D80 amplifiers

Arc and Line mode
The Arc mode is used for line array loudspeakers when used in curved array sections with splay angles between 2° and 7°. The Line mode is used for long throw array sections with three or more consecutive splay settings between 0° and 1°. Compared to the Arc mode, the upper mid range is reduced to compensate for the extended near field.

CUT mode
Set to CUT, the cabinet low frequency level is reduced and it is now configured for use with the d&b J subwoofer.

HFC mode
Selecting the HFC (High Frequency Compensation) mode compensates for loss of high frequency energy due to absorption in air when loudspeakers are used to cover far field listening positions. HFC has two settings which should be used selectively, HFC1 for cabinets covering distances larger than 40 m (130 ft) and HFC2 for those covering distances larger than 80 m (260 ft). This can be used to achieve the correct sound balance between close and remote audience areas allowing all amplifiers driving the array to be fed from the same signal source. Thus the whole array performs with comparable headroom.

CPL function
The CPL (Coupling) function compensates for coupling effects between closely coupled cabinets by reducing the low and mid frequency level. CPL begins gradually at 2 kHz, with the maximum attenuation below 100 Hz, providing a balanced frequency response when J-Series cabinets are used in arrays of five or more. The CPL function can be set in dB attenuation values between –9 and 0.

INFRA mode
Selecting the INFRA mode restricts the J-SUB frequency response to a narrow 32 Hz - 70 Hz range. The J-SUB can now be used to supplement d&b J-Series systems operated in full range mode.

HCD mode
Depending on the application requirements, the dispersion pattern of the J-SUB and J-INFRA cabinets can be modified electronically to achieve the best sound rejection where it is most effective. In standard cardioid mode the amplifier J-SUB and J-INFRA setup provides the maximum rejection directly behind the cabinet, whilst selecting HCD (hypercardioid) optimizes the tuning for a maximum rejection to the rear left and right sides. The HCD mode is particularly useful for applications with subwoofers stacked on the left and right sides of the stage to provide the minimum low frequency energy onstage.

70 Hz mode
Selecting the 70 Hz mode extends the J-INFRA frequency response to a 27 Hz - 70 Hz range. The J-INFRA can now be used to supplement d&b J-Series systems operated in full range mode.

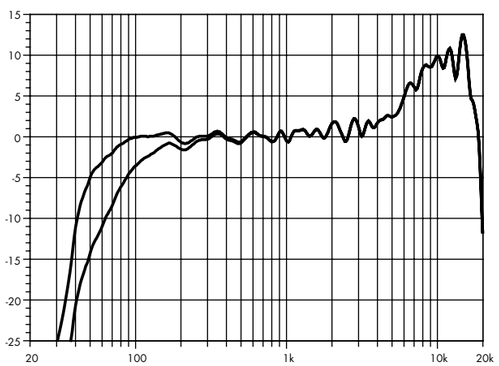
Maximum loudspeakers per amplifier

	J8	J12	J-SUB	J-INFRA
D12	2	2	1	1
D80	4	4	2	2

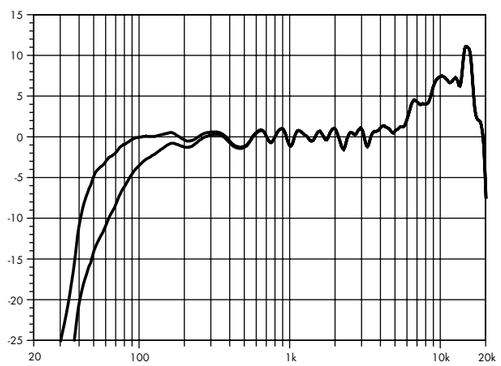
D12 and D80 controller settings

	J8	J12	J-SUB	J-INFRA
Arc/Line	x	x		
CUT	x	x		
HFC	x	x		
CPL	x	x		
INFRA			x	
HCD			x	x
70 Hz				x

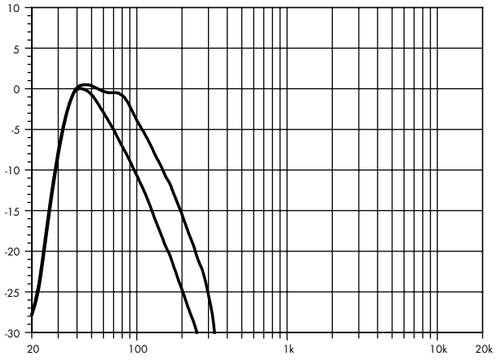
The J-Series frequency responses



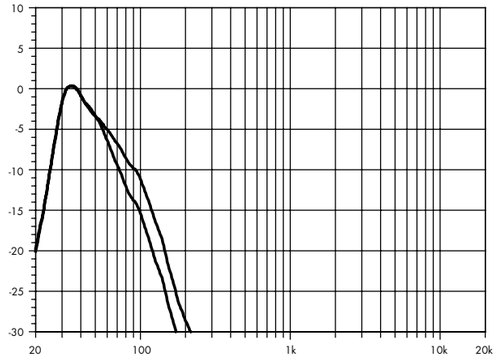
J8 standard and CUT (single cabinet)



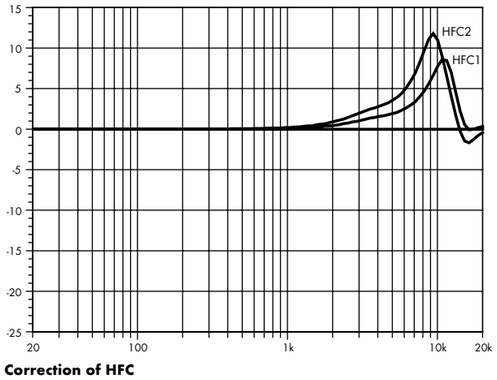
J12 standard and CUT (single cabinet)



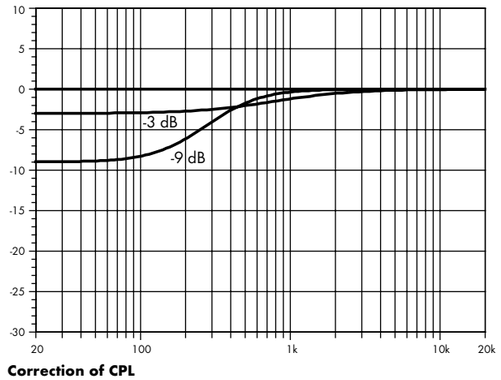
J-SUB standard and INFRA



J-INFRA standard and 70 Hz

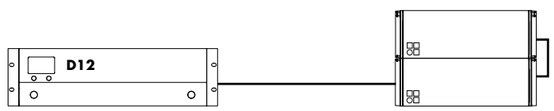


Correction of HFC

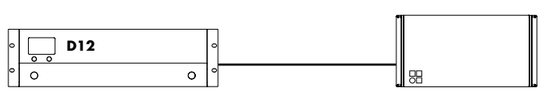


Correction of CPL

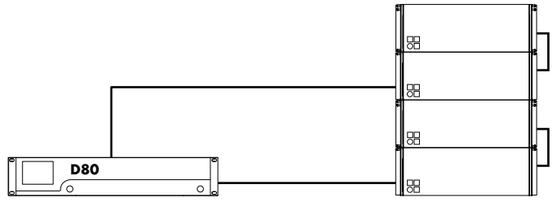
The d&b amplifier output modes



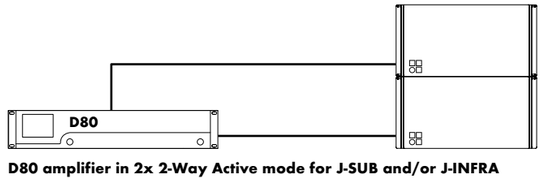
D12 amplifier in 2-Way Active mode for J8 or J12



D12 amplifier in 2-Way Active mode for J-SUB or J-INFRA



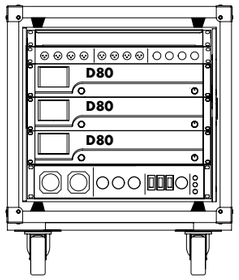
D80 amplifier in 2x 2-Way Active mode for J8 and/or J12



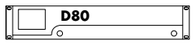
D80 amplifier in 2x 2-Way Active mode for J-SUB and/or J-INFRA

The J-Series cables and adapters

Amplifiers in 2-Way Active mode



Z5330.xxx
D80 Touring rack assembly
OUT: 3 x NL8



1 x D80 amplifier
OUT: NL8

2 x D12 amplifier
OUT: EP5

Z5346.000
Adapter 4 x EP5M to NLT8M

2 x D12 amplifier
OUT: NL4

Z5345.001
Adapter 4 x NL4 to NLT8M

Z5330.xxx
D80 Touring rack assembly
OUT: 2 x LKS19

Z5343.xxx
MC8 Cable NLT8 F/M

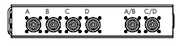
Z5320.xxx
MC12SD Cable LKS19 F/M

Z5348.002
Adapter NLT8F 2-way to 2 x NLT4M

Z5347.001
Breakoutbox NLT8 F/M
to 6 x NL4

Z5348.003
Adapter NLT8F 2-way
to 2 x NL8

Z5348.000
Adapter NLT8F 2-way
to 2 x EP5F



Z5347.000
Breakoutbox NLT8 F/M
to 6 x EP5

Z5321.002
Adapter LKS19M to 3 x NLT4M

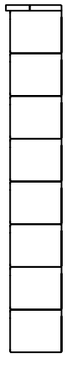
Z5321.000
Adapter LKS19M to 3 x EP5F

Z5323.000
Adapter LKS19M to 3 x NL8

Z5340.xxx
MC4 Cable NLT4 F/M

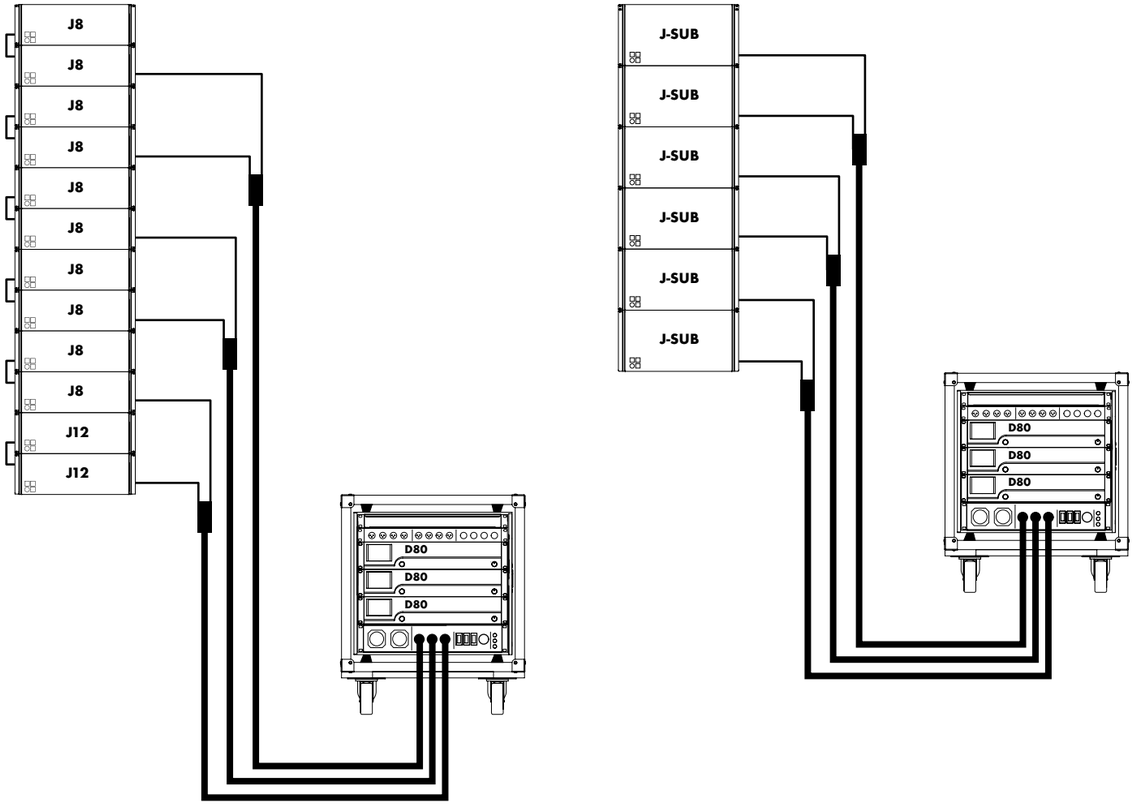
Z5343.xxx
MC8 Cable NLT8 F/M

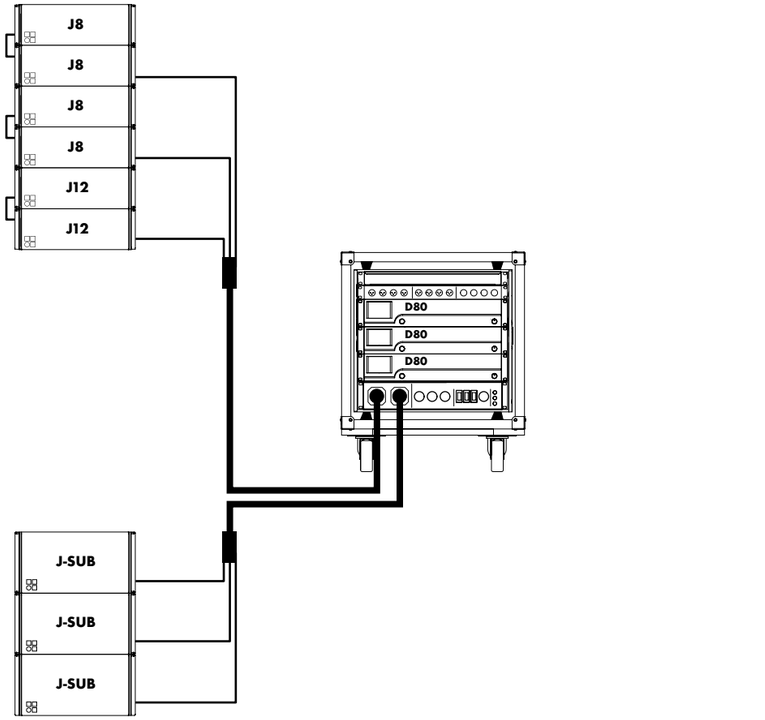
Z2297.xxx
MC4SD Cable EP5



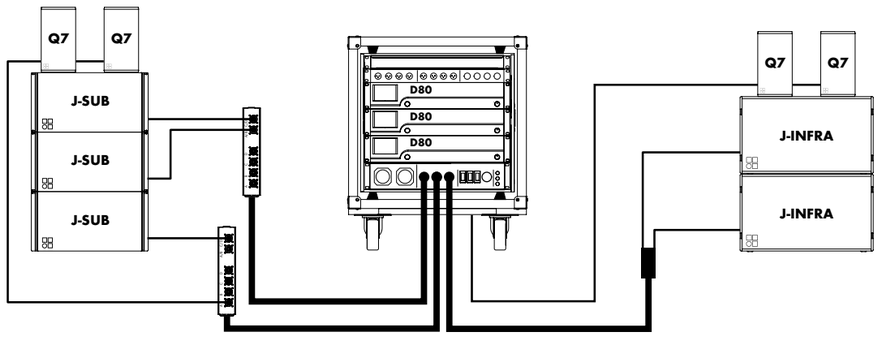
Z2293.100
MC4SD Cable NL8, 1m
Speaker link

The J-Series configuration examples



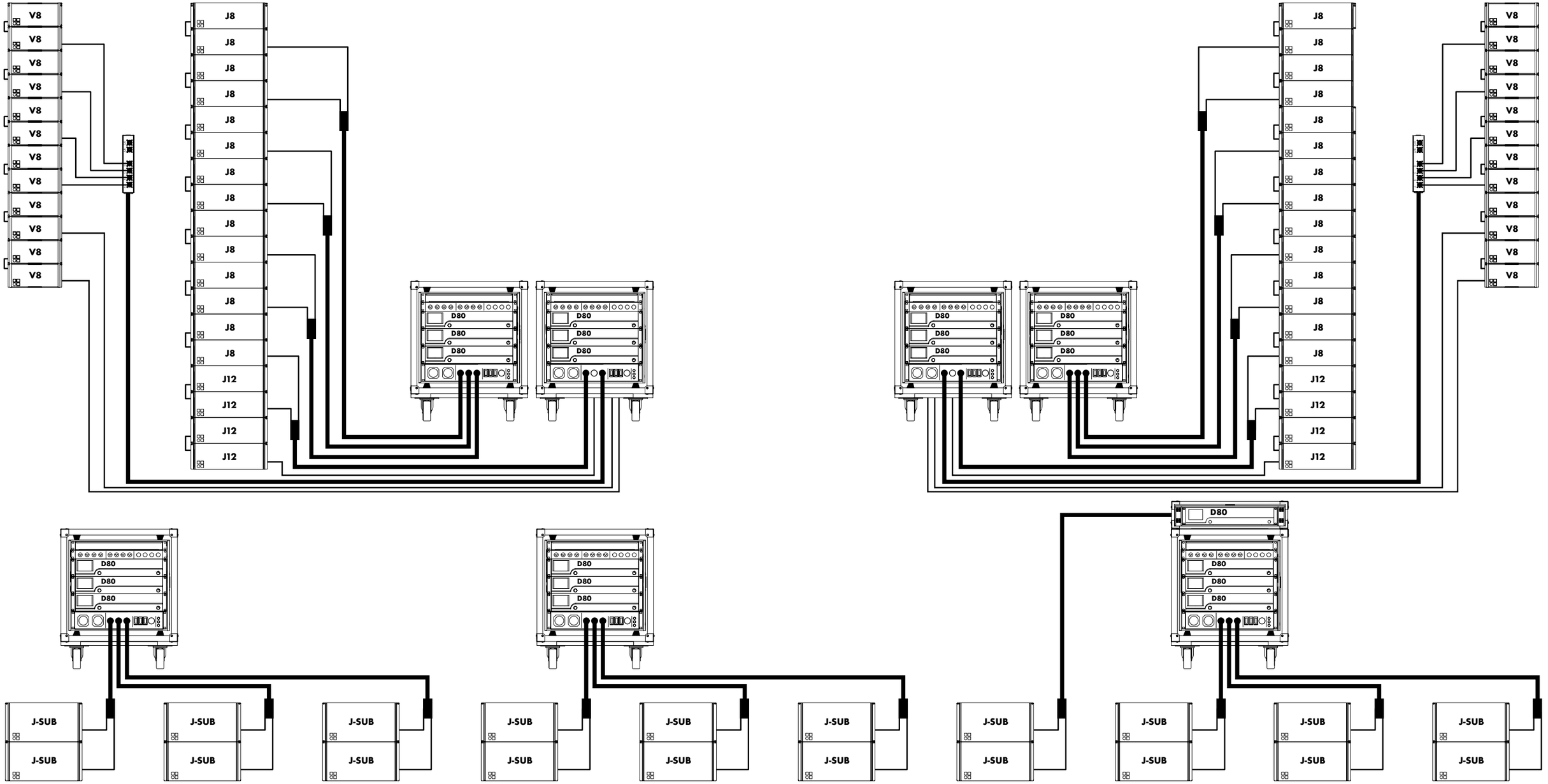


J-Series configuration with J8/J12 flown line array and ground stacked J-SUBs with D80 Touring rack



J-Series configuration comprising J8/J12 mains, a flown J-SUB column along with ground stacked J-SUBs and J-INFRAs and Q7s as nearfills with D80 Touring racks

The J-Series configuration examples



J-Series configuration comprising J8/J12 mains and V8 outfill arrays along with ground stacked J-SUBs with D80 Touring racks and single D80

The J-Series product overview

Loudspeakers	Z0650.002	**J8 Loudspeaker NLT4 F/M** connector
	Z0650.000	**J8 Loudspeaker EP5** connector
	Z0650.010	**J8 Loudspeaker NL8** connector
	Z0651.002	**J12 Loudspeaker NLT4 F/M** connector
	Z0651.000	**J12 Loudspeaker EP5** connector
	Z0651.010	**J12 Loudspeaker NL8** connector
	Z0660.002	**J Subwoofer NLT4 F** connector
	Z0660.000	**J Subwoofer EP5** connector
	Z0660.010	**J Subwoofer NL8** connector
	Z1000.002	**J-INFRA Subwoofer NLT4 F** connector
	Z1000.000	**J-INFRA Subwoofer EP5** connector
	Z1000.010	**J-INFRA Subwoofer NL8** connector
Cases	E7441.000	**Touring case 1 x J Flying frame**
Lids	E7919.000	**J Wheelboard**
	E7910.000	**J-SUB Wooden lid**
	E7920.000	**J-INFRA Wooden lid**
Accessories	Z5300.000	**J Flying frame** (supplied with Z5303 J Safety chainset)
	Z5303.000	**J Safety chainset**
	Z5305.000	**J Hoist connector chain**
Remote network	Z3010.000	**R1 Remote control software**[1]
	Z6118.000	**R60 USB to CAN interface**
	Z6124.000	**R70 Ethernet to CAN interface**
	Z6116.000	**RJ 45 M Terminator**
	Z6122.000	**Bopla mounting clamp**
	Z6123.000	**Bopla mounting clamp upright**
Amplifiers	Z2600.xxx	**D12 Amplifier**[2]
	Z2710.xxx	**D80 Amplifier**[2]
Amplifier rack assemblies	Z5310.000	**D12 Touring rack assembly EP5**[3]
	Z5310.001	**D12 Touring rack assembly NL4**[3]
	Z5330.001	**D80 Touring rack assembly, CEE 32A 5P**[3]
	Z5330.xxx	**D80 Touring rack assembly, Nema L21-30 (120V devices)** on request[3]
Amplifier racks	E7468.000	**D80 Touring rack 2 RU, 19"** SD, shock mounted, handles, window
	E7419.000	**Touring rack 3 RU, 19"** DD, shock mounted, handles, window
	E7420.000	**Touring rack 6 RU, 19"** DD, shock mounted, handles, window, wheels
Cables	Z5343.xxx	**MC8 Cable NLT8 F/M**
	Z5346.000	**Adapter 4 x EP5M to NLT8M**
	Z5345.001	**Adapter 4 x NL4 to NLT8M**
	Z5320.xxx	**MC12SD Cable LKS19 F/M**
	Z5347.001	**Breakoutbox NLT8 F/M to 6 x NL4**
	Z5347.000	**Breakoutbox NLT8 F/M to 6 x EP5**
	Z5340.xxx	**MC4 Cable NLT4 F/M**
	Z2297.xxx	**MC4SD Cable EP5**
	Z2293.100	**MC4SD NL8 Cable 1m**
	Z5348.002	**Adapter NLT8F 2-way to 2 x NLT4M**
	Z5438.003	**Adapter NLT8F 2-way to 2 x NL8**
	Z5348.000	**Adapter NLT8F 2-way to 2 x EP5F**
	Z5321.000	**Adapter LKS19 M to 3 x EP5 F**
	Z5321.002	**Adapter LKS19 M to 3 x NLT4 F/M**
	Z5323.000	**Adapter LKS19 M to 3 x NL8**

1 available as a download at www.dbaudio.com
2 the complete list of amplifier versions is available in the d&b Amplifier and Software brochure
3 further information is available in the d&b Amplifier and Software brochure

www.dbaudio.com

d&b audiotechnik