

Q-SUB

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 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.

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

Q-SUB Data sheet

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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.

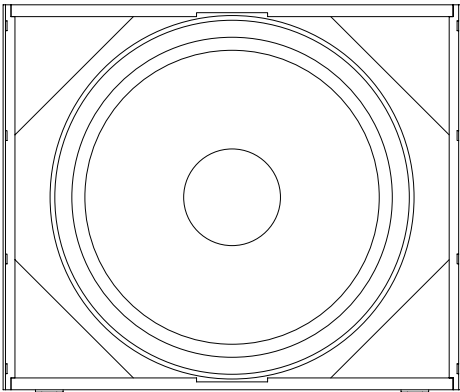
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Q-SUB



The Q-SUB is the subwoofer for the Q-Series. It can be used to supplement Q1 and Q7 cabinets in various combinations, either flown or ground stacked. The Q-SUB cabinet is an actively driven bass-reflex design housing a long excursion 18" driver, its frequency response extending from 40 Hz to 130 Hz.

The Q-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, covered with a replaceable acoustically transparent foam. The cabinet incorporates a pair of handles, and mounted on the rear panel are two EP5 or NL4 connectors wired in parallel and four heavy duty wheels. An M20 threaded flange in the top panel accepts the d&b Z5013 Loudspeaker stand for the deployment of full range cabinets.

The Q-SUB has a total of 10 sockets in the front grill and side panels to accept the Z5153 Locking pins 8 mm that connect to the array links of the Q1 system. 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 that accept these runners to prevent cabinet movement when stacking Q-SUBs.

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

CAUTION!

Connections

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

The Q-SUB can be supplied with NL4 output connectors as an option. Pin equivalents of EP5 and NL4 connectors are listed in the table on the left. The D12 SenseDrive function is not available when using NL4 connectors.

EP5	1	2	3	4	5
NL4	1+	1-	2+	2-	n.c.

EP5 and NL4 pin assignments

Operation with D12

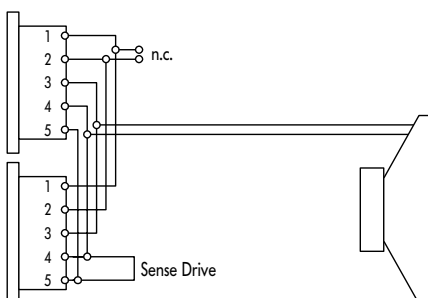
Selecting Q-SUB mode in the D12 enables up to three Q-SUB subwoofers to be driven by the respective channel. In applications with high continuous levels or high ambient temperatures for thermal reasons only two subwoofers per channel (4 ohms) should be connected.

Controller settings

100 Hz circuit

If the 100 Hz circuit is selected, the upper operating frequency of the system is reduced from 130 Hz to 100 Hz.

IMPORTANT!



Connector wiring

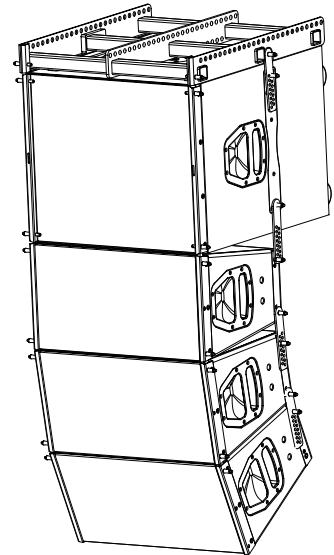
Operation with E-PAC

Selecting Q-SUB mode (firmware V4.00 or later) enables the E-PAC to drive a single Q-SUB cabinet. We do not recommend that two Q-SUB cabinets are driven in LO IMP mode as the 6 dB reduction in input level to the loudspeakers results in no gain in acoustical output.

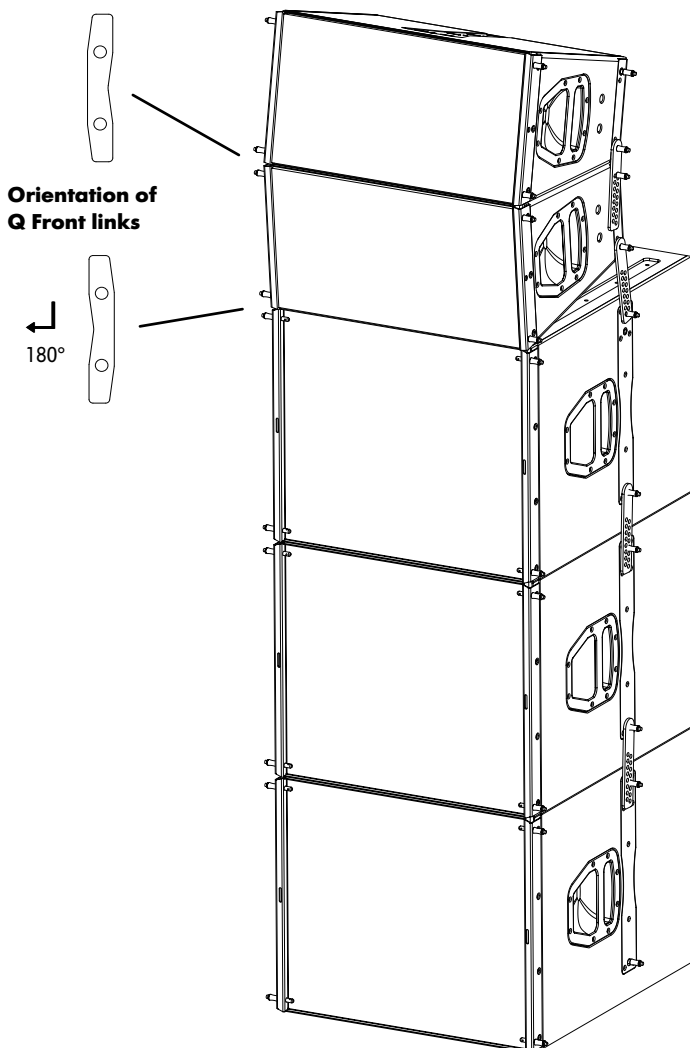
Connecting Q-SUB and Q1 cabinets

Q1 and Q-SUB cabinets use the same sockets in the front grill and side panels to accept the Z5153 Locking pin 8 mm.

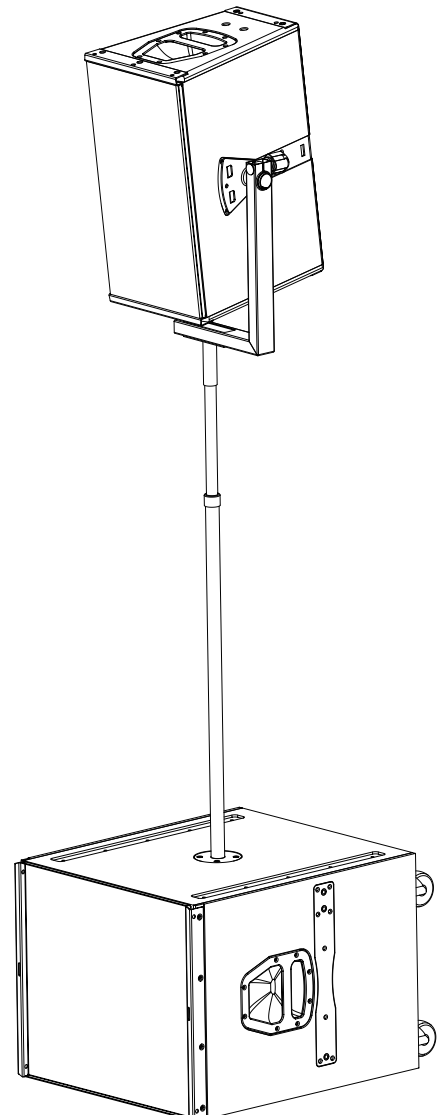
Located on the top of the side panels of the Q-SUB cabinet is an additional socket that enables the Q1 cabinet to be tilted downwards up to 6° for ground stacked use. In this case the Z5152 Q Front links have to be rotated through 180° before attaching to allow the Q1 cabinet to be tilted to the front (see picture below).



Q1 and Q-SUB line array



Q1 and Q-SUB stack



Q7 and Q-SUB

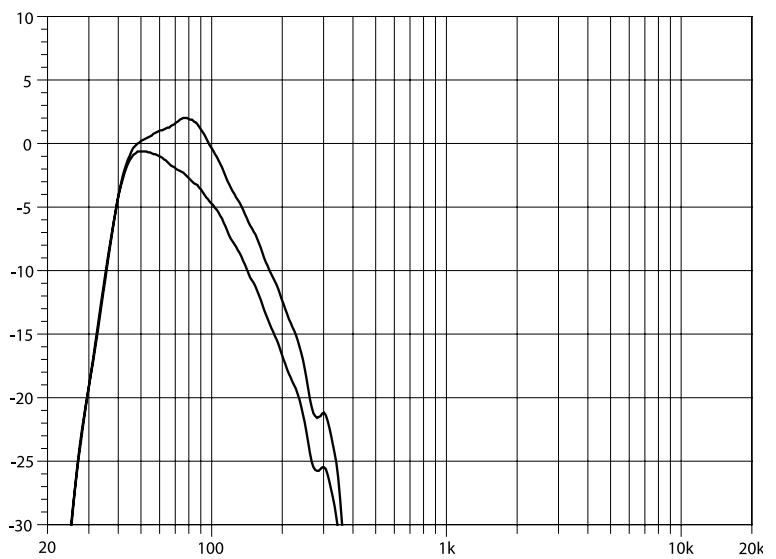
Technical specifications

Q-SUB system data

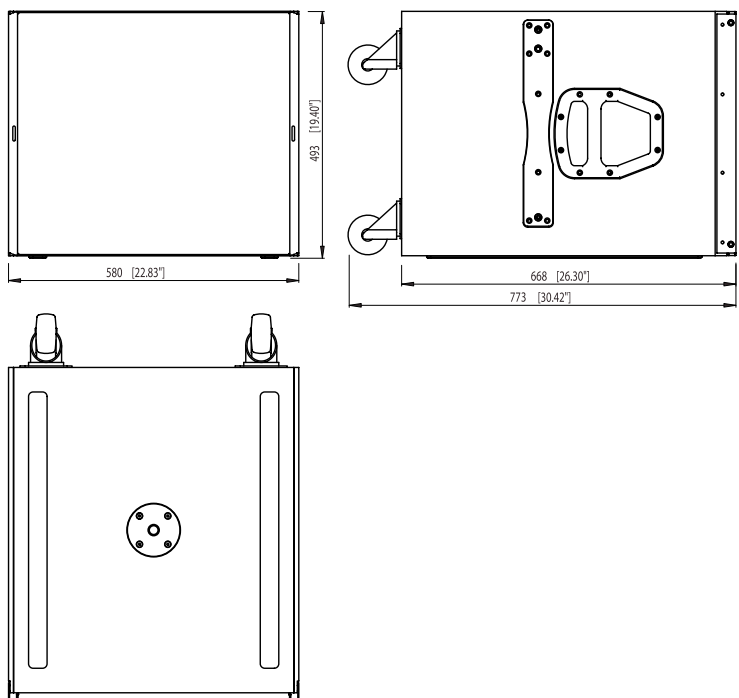
Frequency response (-5 dB standard)..... 40 Hz ... 130 Hz
 Frequency response (-5 dB 100 Hz mode)..... 40 Hz ... 100 Hz
 Max. sound pressure (single cabinet, 1 m, free field) with D12 133 dB
 Max. sound pressure (single cabinet, 1 m, free field) with E-PAC 129 dB
 (SPLmax peak, pink noise test signal with crest factor of 4)
 Polarity to controller INPUT (XLR pin 2: + / 3: -) LF: +

Q-SUB subwoofer

Nominal impedance..... 8 ohms
 Power handling capacity (RMS / peak 10 ms)..... 400/1600 W
 Connections 2 x EP5
 (optional 2 x NL4)
 Pin assignments EP5: 3/4, SenseDrive pin 5
 NL4: 2+/2-
 Weight 42 kg (92.6 lb)



Q-SUB frequency response, standard and 100 Hz settings



Q-SUB cabinet dimensions in mm [inch]

