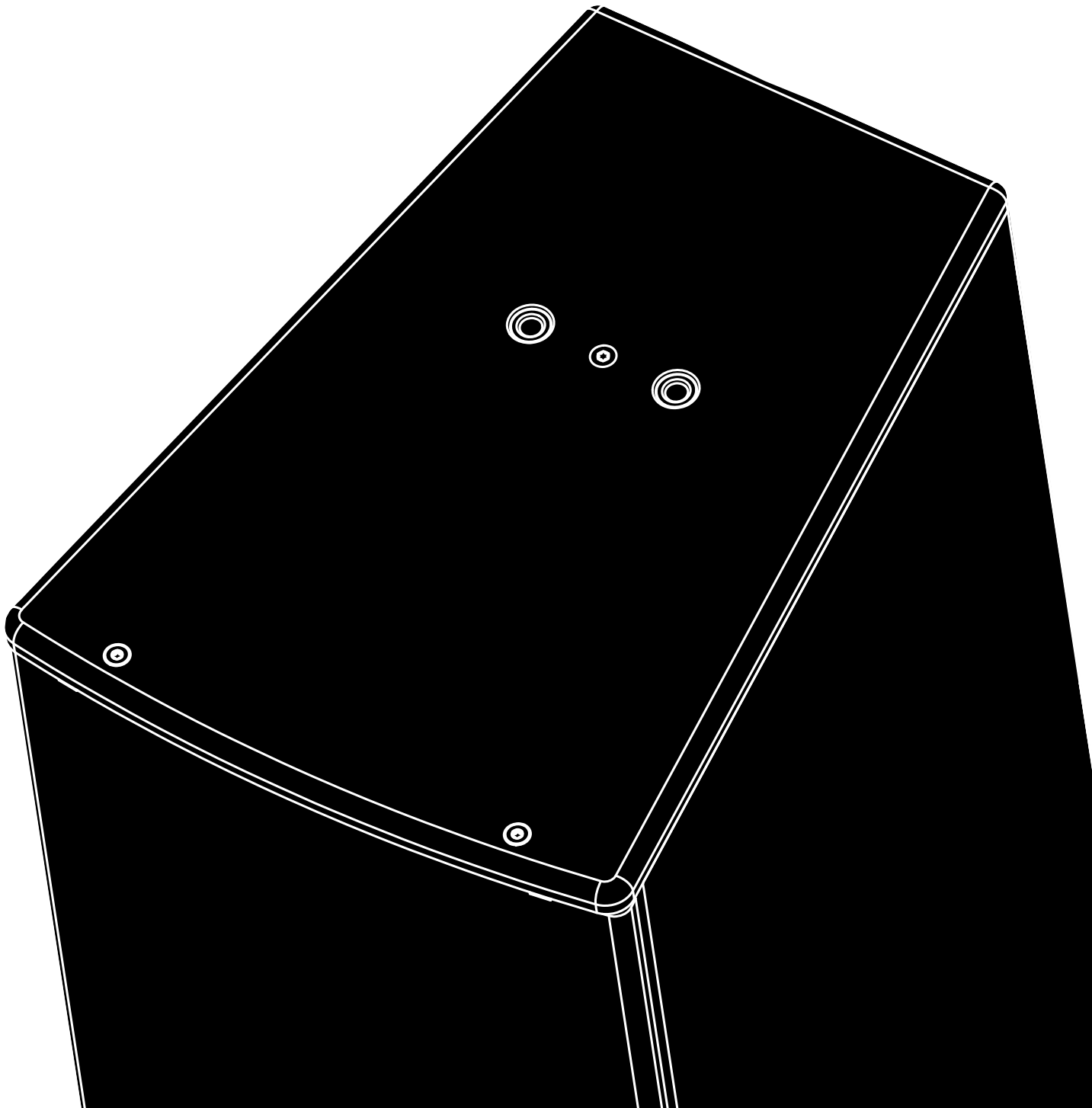
Yi7P/Yi10P
Manual 1.2 en



General information

Yi7P/Yi10P Manual

Version: 1.2 en, 03/2016, D2711.EN .01

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 owner.

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.

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Contents

1.1. Information regarding the use of loudspeakers

Potential risk of personal injury

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.

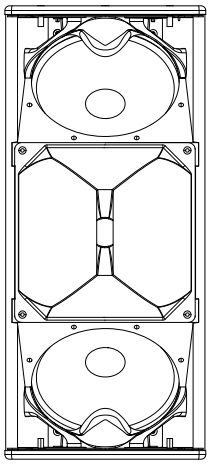
In order to prevent accidents when deploying loudspeakers on the ground or when flown, please take note of the following:

- 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.

Potential risk of material damage

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.

2. Yi7P/Yi10P loudspeaker



2.1. Product description

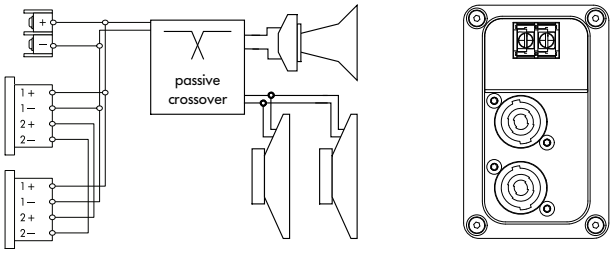
The Yi7P/Yi10P are passive 2-way loudspeakers housing two 8" LF drivers and a 1.4" HF compression driver with a rotatable CD horn producing a nominal dispersion (h x v) of 75° x 40° or 110° x 40°, respectively. The frequency response extends from 59 Hz to above 18 kHz.

The two 8" neodymium LF drivers are positioned in a dipolar arrangement providing exceptional vertical dispersion control even at lower frequencies.

Specially designed ports with optimized flow characteristics provide a considerably improved, efficient low frequency reproduction.

The cabinets are constructed from marine plywood and have an impact and weather protected PCP (Polyurea Cabinet Protection) finish. The fronts of the loudspeaker cabinets are protected by a rigid metal grill backed by an acoustically transparent foam.

The top and bottom panels of the cabinets are each equipped with a pair of M10 threaded inserts to connect to different rigging accessories such as the Z5398 YP Horizontal bracket, the Z5399 YP Mounting bracket, the Z5354 E8/E12 Flying adapter or the Z5020/25 Flying adapter 02/03.



Connector wiring

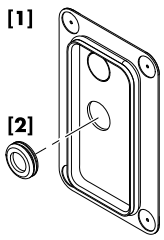
2.2. Connections

The cabinets are fitted with a pair of NL4 M connectors and a two pole screw terminal block (ST). All four pins of both NL4 M connectors are wired in parallel. The cabinets use the pin assignments 1+/1–. Pins 2+/2– are designated to active subwoofers.

Cabinets with the weather resistant option (WR) are equipped with a fixed input cable (PG type, H07-RN-F, 2 x 2.5 mm^2 (AWG 13), standard length 5.5 m (18 ft).

Pin equivalents of the applicable connector options are listed in the table below.

NL4 M	1+	1–	2+	2–
ST	+	–	n.a.	n.a.
PG	Brown (+)	Blue (–)	n.a.	n.a.



Cover plate and rubber grommet

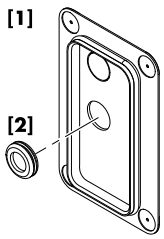
Fixed cable connection

The Yi7P and Yi10P loudspeakers are each supplied with a cover plate **[1]** and a rubber grommet feed through **[2]**. For indoor operation, these items can be used to hide the connector panel, if required. For unprotected outdoor operation, the connector panel must be covered, i.e. both items must be used to achieve an IP degree of protection of IP34.

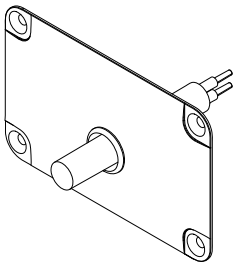
To install the fixed cable connection, proceed as follows:

Tools required: Philips screw driver (#PH2).

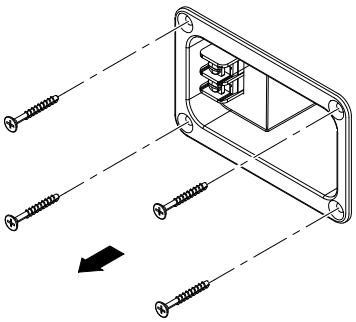
1. Remove the knockout opening in the cover plate **[1]** and attach the rubber grommet **[2]** correspondingly.
2. Insert the connection cable through the rubber grommet.
3. Undo the four screws of the connector panel.
4. Connect the cable wires to the screw terminal.
   ⇒ Observe the correct polarity!
5. Push the cover plate towards the connector panel until it fits into place.
6. Finally fix the cover plate together with the connector panel using all screws.



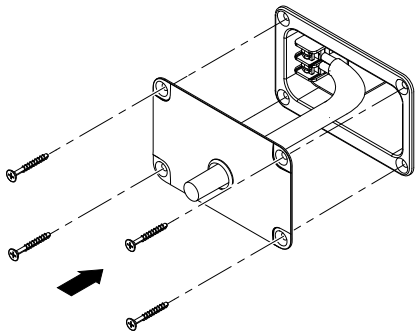
Step 1



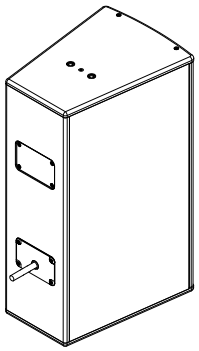
Step 2



Step 3

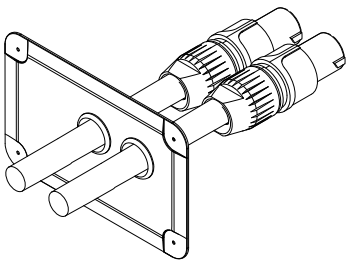


Step 4/5



Step 6

Installing the fixed cable connection



NL4 cable connection with cover plate [1]

NL4 connection with cover plate

The two NL4 connector sockets of the cabinet's connector panel are located in a recess to allow the use of the cover plate **[1]** together with NL4 cable connectors, as shown in the graphic opposite.

> **Note:** Neutrik NL4FC type connectors must be used for this option.

The cover plate is equipped with two knockout openings to allow daisy chaining of the loudspeaker.
To use the NL4 connection, proceed in the same manner as described in the previous section .

2.3. Operation

NOTICE!

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

Applicable d&b amplifiers:
D80/D20/D12/D6/10D/30D.

Application	Setup	Cabinets per channel
Yi7P	Y7P	2
Yi10P	Y10P	2

For applicable amplifiers, the controller setups are available in Dual Channel and Mix TOP/SUB mode.

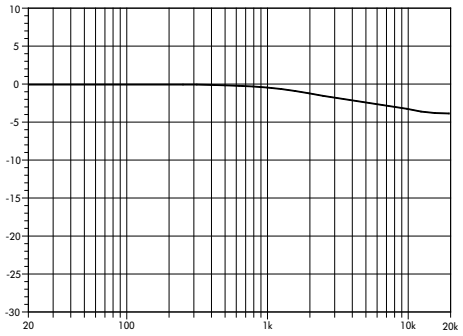
2.3.1. Controller settings

For acoustic adjustment the functions CUT, HFA and CPL can be selected.

CUT circuit
Set to CUT, the cabinet low frequency level is reduced. The cabinets are now configured for use with actively driven d&b subwoofers.

HFA circuit
In HFA mode (High Frequency Attenuation), the HF response of the system is rolled off. HFA provides a natural, balanced frequency response when a unit is placed close to listeners in near field or delay use.

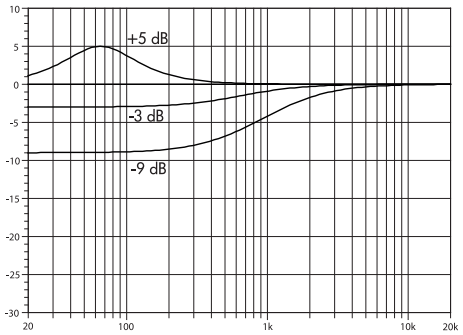
High Frequency Attenuation begins gradually at 1 kHz, dropping by approximately 3 dB at 10 kHz. This roll off mimics the decline in frequency response experienced when listening to a system from a distance in a typically reverberant room or auditorium.



Frequency response correction of HFA circuit

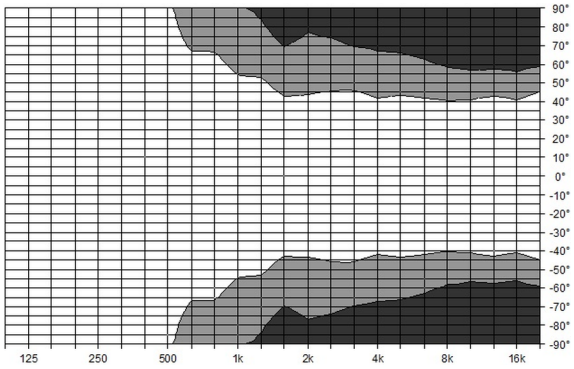
CPL circuit
The CPL (Coupling) circuit compensates for coupling effects between the cabinet and close boundary surfaces. CPL begins gradually around 1 kHz, with the maximum attenuation below 400 Hz. To achieve a balanced frequency response, the CPL circuit can be set to dB attenuation values between 0 and –9.

Positive CPL values create an adjustable low frequency boost (0 to +5 dB) at around 65 Hz and can be set when the system is used in full range mode without subwoofers.

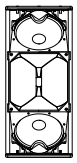


Frequency response correction of CPL circuit

2.4. Dispersion characteristics

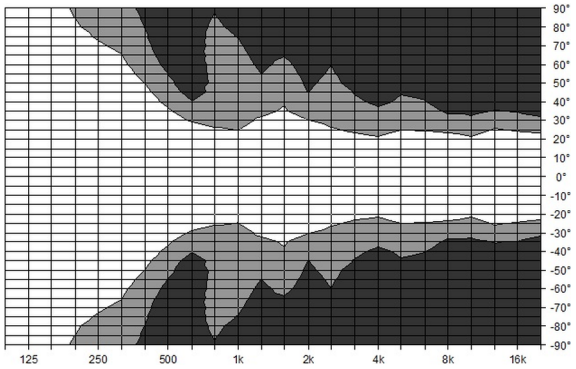


Isobar diagram horizontal

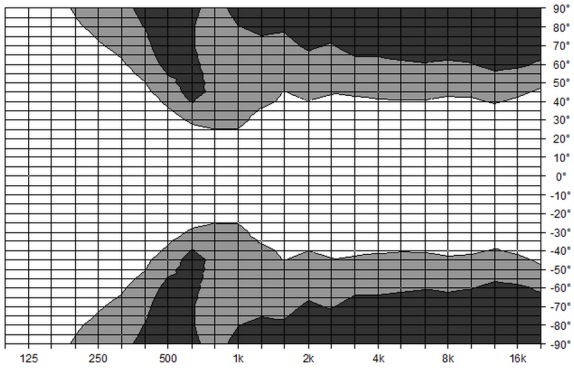


Yi7P

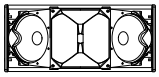
vertical setup



Isobar diagram vertical

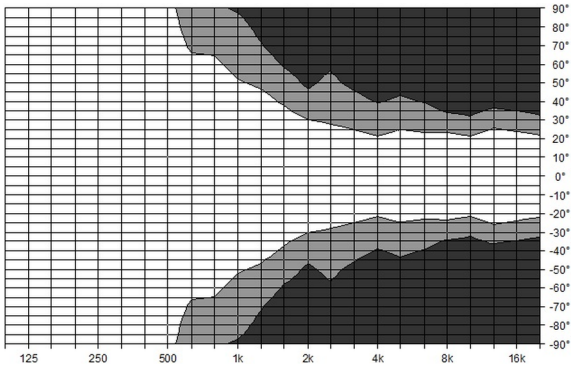


Isobar diagram horizontal

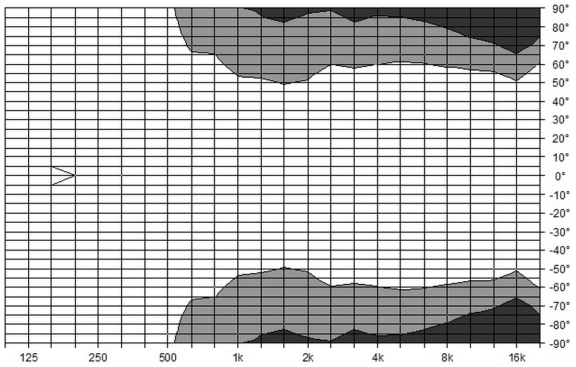


Yi7P

horizontal setup,
horn rotated



Isobar diagram vertical



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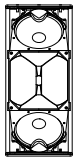
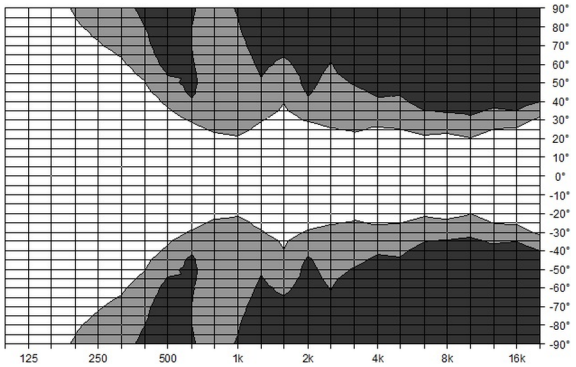
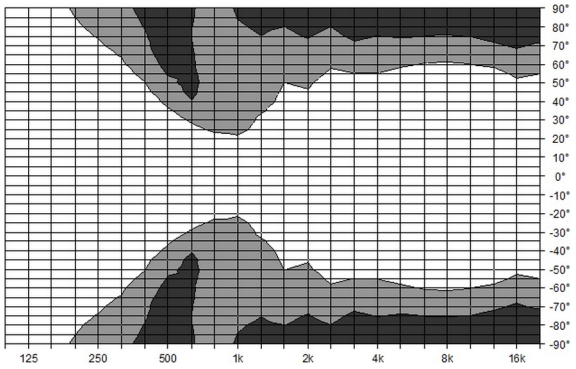


Yi10P

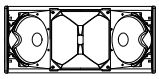
vertical setup



Isobar diagram vertical

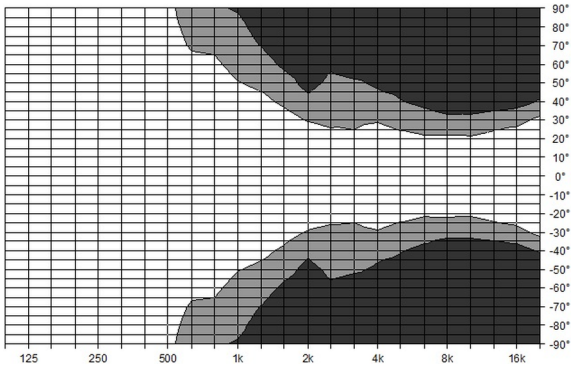


Isobar diagram horizontal

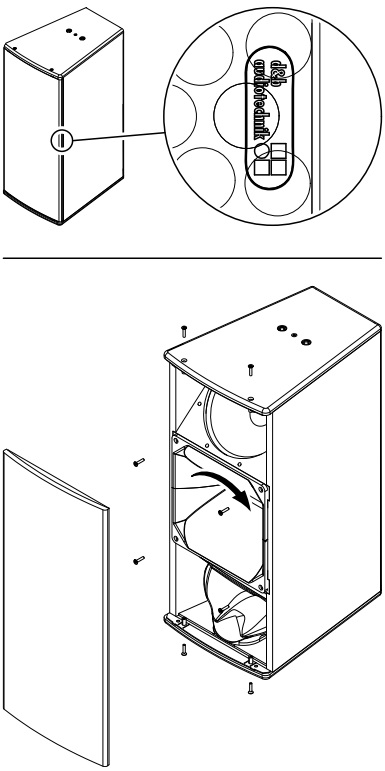


Yi10P

horizontal setup,
horn rotated



Isobar diagram vertical



Altering the HF dispersion

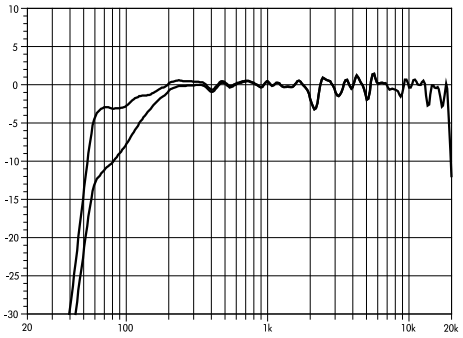
Altering the HF horn dispersion

By factory default, the HF horn is fitted to the cabinet providing the nominal horizontal dispersion when the cabinet is used in upright position. This is indicated by a white label on the horn flange. The label is visible through the front grill on each side of the cabinet as shown in the graphic opposite.

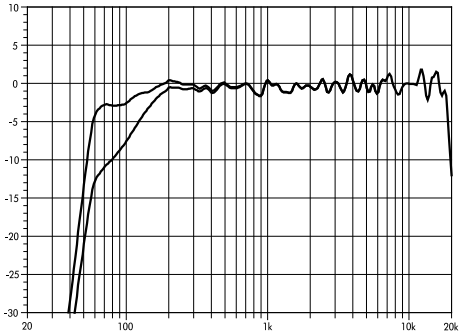
The HF horn can be rotated through 90°.

Tools required: Torx wrench (#TX20).

1. Undo the torx screws on the top and bottom panels of the cabinet and remove the front grill.
2. Undo the screws holding the horn flange and rotate the horn.
3. Refit the horn as follows:
   - Make sure the gasket of the horn is in place.
   - Refit the horn.
   - Insert all screws and carefully tighten them clockwise until they fit precisely into the countersunk holes.
4. Refit the front grill.



Yi7P frequency response, standard and CUT modes



Yi10P frequency response, standard and CUT modes

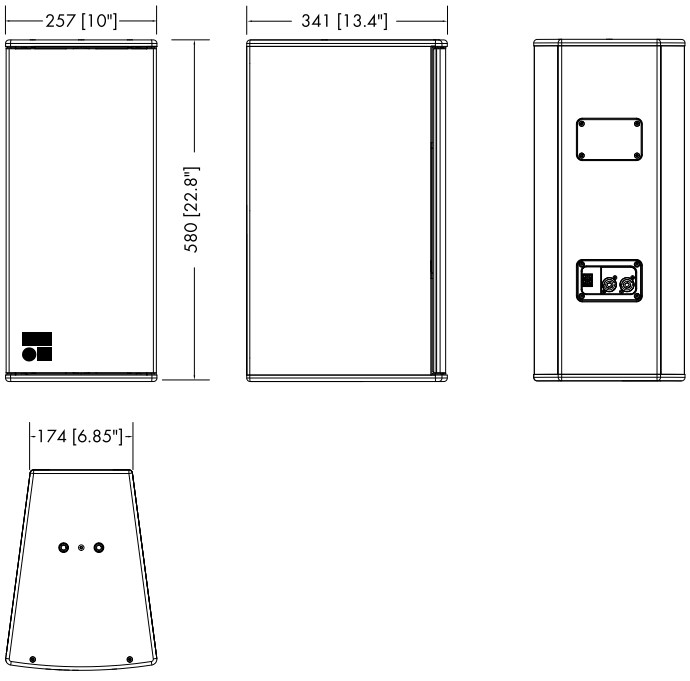
2.5. Technical specifications

Yi7P/Yi10P system data

Frequency response (–5 dB standard) ..... 59 Hz - 18 kHz
Frequency response (–5 dB CUT mode) ..... 118 Hz - 18 kHz
Max. sound pressure (1 m, free field) .....
Yi7P with D6/10D ..... 132 dB
Yi7P with D12/D20/30D ..... 135 dB
Yi7P with D80 ..... 137 dB
Yi10P with D6/10D ..... 131 dB
Yi10P with D12/D20/30D ..... 134 dB
Yi10P with D80 ..... 136 dB
..... (SPLmax peak, pink noise test signal with crest factor of 4)

Yi7P/Yi10P loudspeaker

Nominal impedance ..... 8 ohms
Power handling capacity (RMS/peak 10 ms) ..... 400/1600 W
Nominal dispersion angle (horizontal) Yi7P ..... 75°
Nominal dispersion angle (horizontal) Yi10P ..... 110°
Nominal dispersion angle (vertical) ..... 40°
Components ..... 2 x 8" driver with neodymium magnet
..... 1.4 " exit compression driver
..... Passive crossover network
Connections ..... 2 x NL4 M
..... 1 x screw terminal (ST - up to 4 mm^2/AWG 11)
Optional fixed cable (PG): .....
..... H07-RN-F, 2 x 2.5 mm^2 (AWG 13), 5.5 m (18 ft)
Pin assignment ..... NL4 M: 1+/1–
..... Fixed cable (PG): Brown: (+) / Blue: (–)
Weight ..... 18 kg (40 lb)



Yi7P/Yi10P cabinet dimensions in mm [inch]

3.1. EU conformity of loudspeakers (CE symbol)

This declaration applies to:

d&b Yi7P loudspeaker, Z0712

d&b Yi10P loudspeaker, Z0713

manufactured by d&b audiotechnik GmbH.

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 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.

3.1.1. 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.

d&b audiotechnik