

B-HYPE⁸

B-HYPE¹⁰

B-HYPE¹²

B-HYPE¹⁵

MANUALE D'USO – Sezione 1

USER MANUAL - Section 1

BEDIENUNGSANLEITUNG - Abschnitt 1

CARACTERISTIQUES TECHNIQUES - Section 1

MANUAL DEL USUARIO - Sección 1

Le avvertenze nel presente manuale devono essere osservate congiuntamente al "MANUALE D'USO - Sezione 2".

The warnings in this manual must be observed together with the "USER MANUAL- Section 2".

Die Warnungen in diesem Handbuch müssen in Verbindung mit der "BEDIENUNGSANLEITUNG - Abschnitt 2" beobachtet werden".

Les avertissements spécifiés dans ce manuel doivent être respectés ainsi que les "CARACTERISTIQUES TECHNIQUES -Section 2".

Las advertencias del presente manual se deben tener en cuenta conjuntamente con las del "Manual del usuario" - Sección 2".

TABLE OF CONTENTS

| | |
|--|-----------|
| 1. GENERAL INFORMATION | 21 |
| WELCOME! | 21 |
| PRODUCT OVERVIEW..... | 21 |
| USER REFERENCE..... | 21 |
| MECHANICAL AND ACOUSTICAL FEATURES..... | 22 |
| DIMENSIONS..... | 22 |
| SOUND COVERAGE..... | 22 |
| FEATURES OF THE AMPLIFIER AND CONTROL SECTIONS..... | 23 |
| INPUT, OUTPUT AND CONTROL SECTION..... | 24 |
| POWER SUPPLY UNIT SECTION..... | 25 |
| 2. FIRST POWER-UP..... | 26 |
| PACKAGE CONTENTS | 26 |
| CONNECTION OF AN INPUT..... | 26 |
| CONNECTING THE OUTPUT OF MULTIPLE MODULES (<i>audio daisy chain</i>) | 27 |
| POWER SUPPLY CONNECTION..... | 28 |
| 3. USAGE EXAMPLES..... | 29 |
| USAGE ON STAND | 29 |
| USAGE ON SUBWOOFER WITH POLE..... | 29 |
| FLOOR USAGE AS A MONITOR | 29 |
| 4. ACCESSORIES..... | 30 |
| 5. TROUBLESHOOTING..... | 31 |
| 6. SPECIFICATIONS | 32 |
| GENERAL | 32 |
| ACOUSTICAL SPECIFICATIONS | 32 |
| AMPLIFIER..... | 32 |
| PROCESSOR..... | 33 |
| USER INTERFACE | 33 |
| INPUTS & OUTPUTS..... | 33 |
| POWER SUPPLY SPECIFICATIONS (ABSORPTION / INSTALLATION) | 33 |
| DIMENSIONS..... | 34 |

1. GENERAL INFORMATION

WELCOME!

Thanks for purchasing a product designed and developed in Italy by dBTechnologies! This ergonomic and versatile active speaker is the result of a long experience in the sound reinforcement industry, making use of optimized sound, electronic and material research solutions.

PRODUCT OVERVIEW

The new active B-HYPE speakers are equipped with a 1" compression driver (coil: 1.4") for the high section. In B-HYPE 8 and B-HYPE 10, playback of medium/low frequencies is performed by a 8" and 10" transducer (with 1.5" coil) respectively. In B-HYPE 12 and B-HYPE 15 woofers are 12" and 15" (with 2" coil) respectively. The main characteristics of this series are:

- an ergonomic, compact and versatile project that also provides monitoring for small live contests
- acoustic asymmetry of the horn for high frequencies, specifically optimised for an effective use in different indoor and outdoor situations
- reliable, silent digital amplifier
- DSP preset, allowing to add emphasis on low and high frequencies

USER REFERENCE

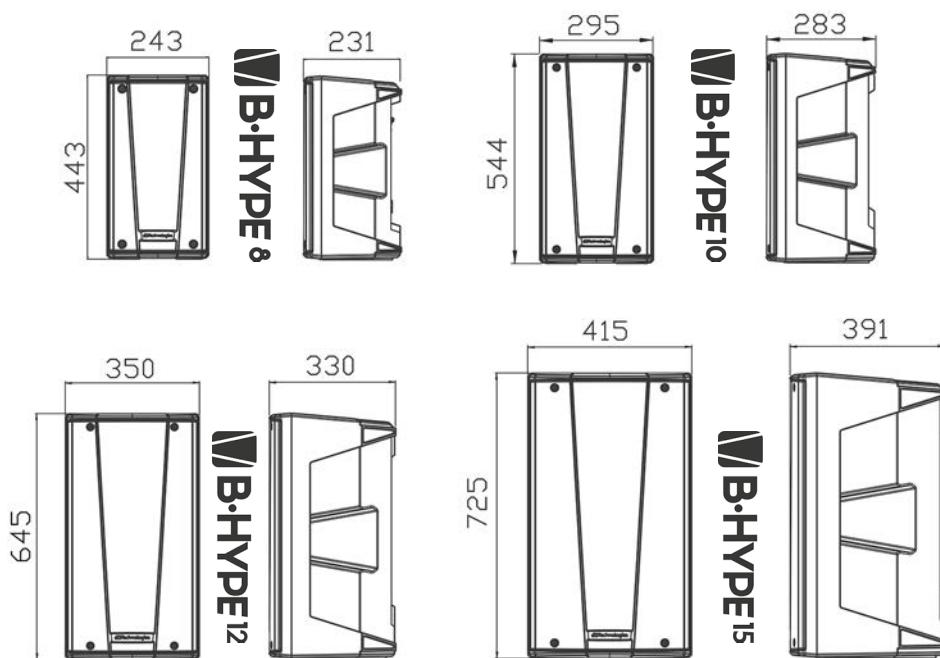
To make the most of your B-HYPE speaker, we recommend that you:

- Read the quick start user manual included in the package and this user manual thoroughly and keep this manual during the whole life of the product.
- Register your product at <http://www.dbtechnologies.com> under "[SUPPORT](#)".
- Keep proof of purchase and WARRANTY (User manual "section 2").

MECHANICAL AND ACOUSTICAL FEATURES

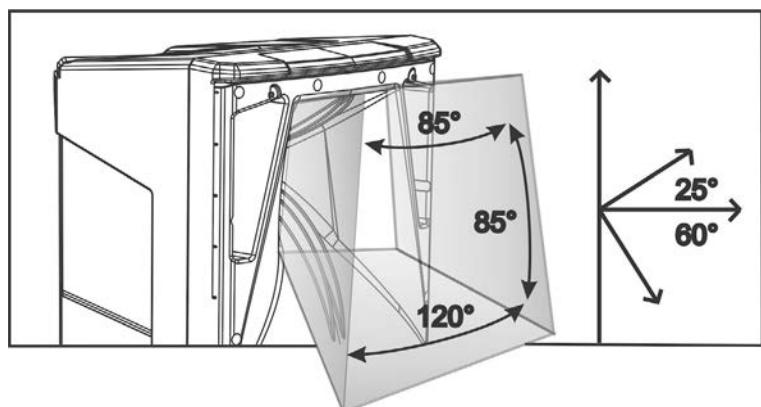
DIMENSIONS

The B-HYPE series has been designed with the intent to optimise weight and dimensions. The cabinet is light but resistant and features handles at the top and on the sides, for easy and quick handling. For a quick comparison of the 4 models, the overall dimensions (in mm) are indicated in the figure below:



SOUND COVERAGE

The special design of the horn, shown in the figure, is common for all 4 models. In horizontal, the coverage is differentiated between the value of 85° (upper part) and 120° (lower part). This is to optimise sound emission, for example during vertical installation in reverberant environments. The overall vertical opening (85°) is asymmetrical, to increase the horn sound pressure for long distance.



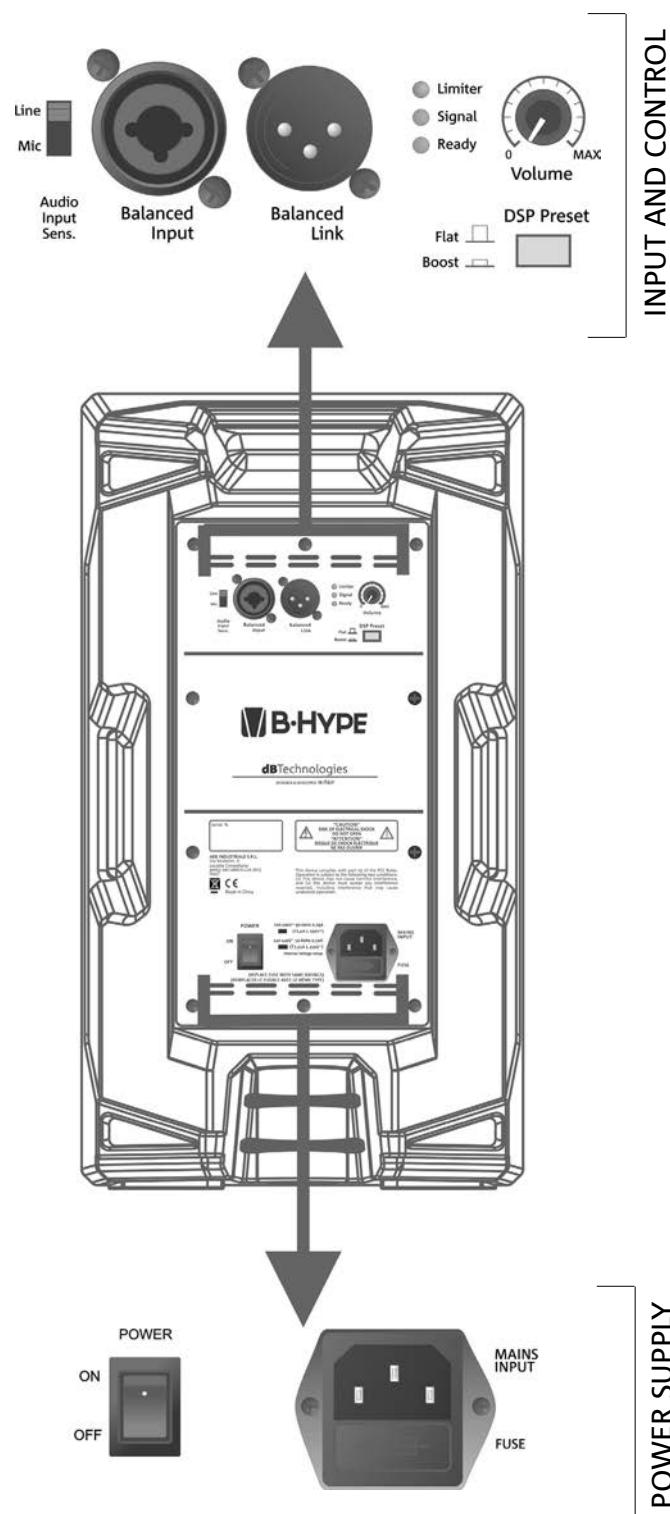
FEATURES OF THE AMPLIFIER AND CONTROL SECTIONS

Class D digital amplifier is at the heart of the B-HYPE series. The system is silent and is controlled by a dedicated powerful DSP that manages the different parameters.

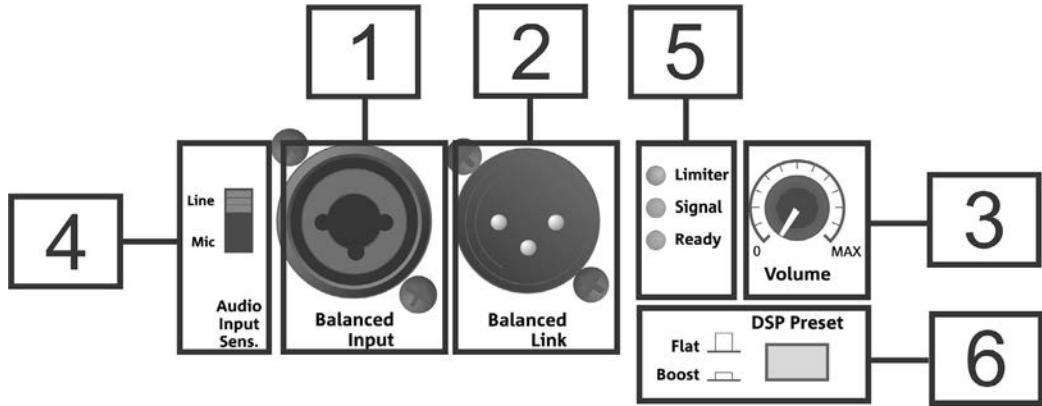
The sound amplification power is 260 W (peak) for B-HYPE 8 and B-HYPE 10 models, and 400 W (peak) for B-HYPE 12 and B-HYPE 15 models.

WARNING!

- B-HYPE12 and B-HYPE15 models feature a cooling fan on the rear: do not obstruct it and leave enough space for speaker ventilation.
- Protect the speaker from moisture.
- Never attempt to disassemble the amplifier in any way.
- Use only the supplied power supply cable. For audio connections, cables and connectors must be of good quality and intact.
- In the event of a failure, immediately cut power supply off, disconnect every connection and contact an authorised repair centre.



INPUT, OUTPUT AND CONTROL SECTION



1. **Balanced Input**

Combo input for XLR or TRS connector (balanced and unbalanced).

It allows to connect a microphone, a mixer or a musical instrument provided with line impedance (e.g. an electronic keyboard). To correctly set the input type, use the Audio Input Sensitivity selector [4].

2. **Balanced Link**

Output for XLR connector. It allows to daisy-chain the audio signal to a second speaker.

3. **Volume**

Output level control of the speaker, it does not affect the "Balanced Link" [2] output connection.

4. **Audio Input Sensitivity**

"Line/Mic" selector to adapt the input impedance. Use the "Line" position to connect a mixer, an instrument with line impedance or "Mic" for a microphone to the input [1].

When the audio signal is daisy-chained to a second B-HYPE speaker, on the latter the "Line" position must be selected.

5. **LED**

"Limiter", "Signal" and "Ready" LEDs provide information about the amplifier and speaker status.

"Limiter" turns on when the protection circuit is triggered, which protects the transducers in the event of a too high audio level. Avoid to operate very often or in a continuous way with this LED on (use control [3] to reduce the amplifier volume).

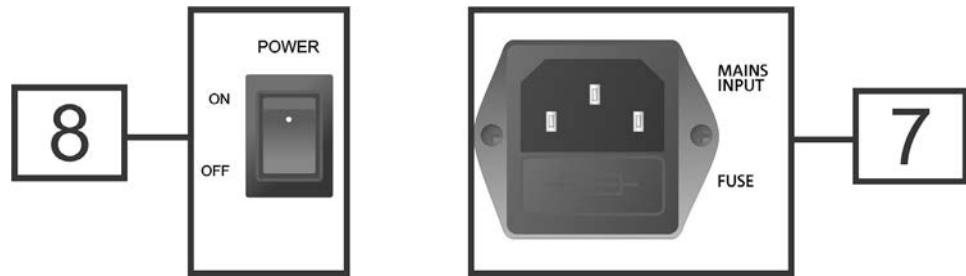
"Signal" indicates the presence of an input audio signal.

"Ready" indicates that the amplifier is properly on and is ready to operate.

6. **DSP Preset**

In "Flat" position the speaker sound is not equalised.

In "Boost" position an emphasis is applied both on low and on high frequencies.

POWER SUPPLY UNIT SECTION**6. POWER**

Switch for turning device ON or OFF.

7. MAINS INPUT

VDE connector input. For connection to the mains, through the cable supplied with the device.

2. FIRST POWER-UP

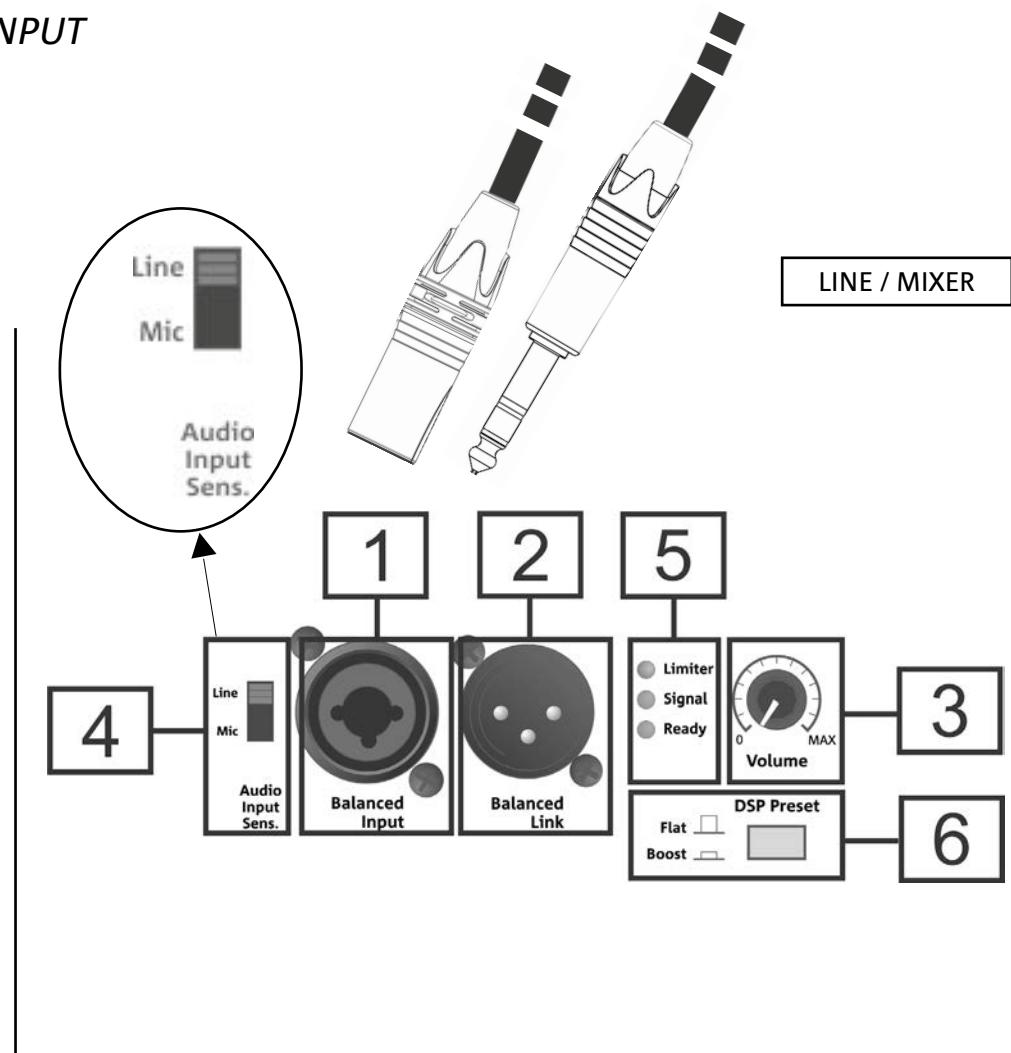
PACKAGE CONTENTS

The package of B-HYPE 8, B-HYPE 10, B-HYPE 12 or B-HYPE 15 speaker contains:

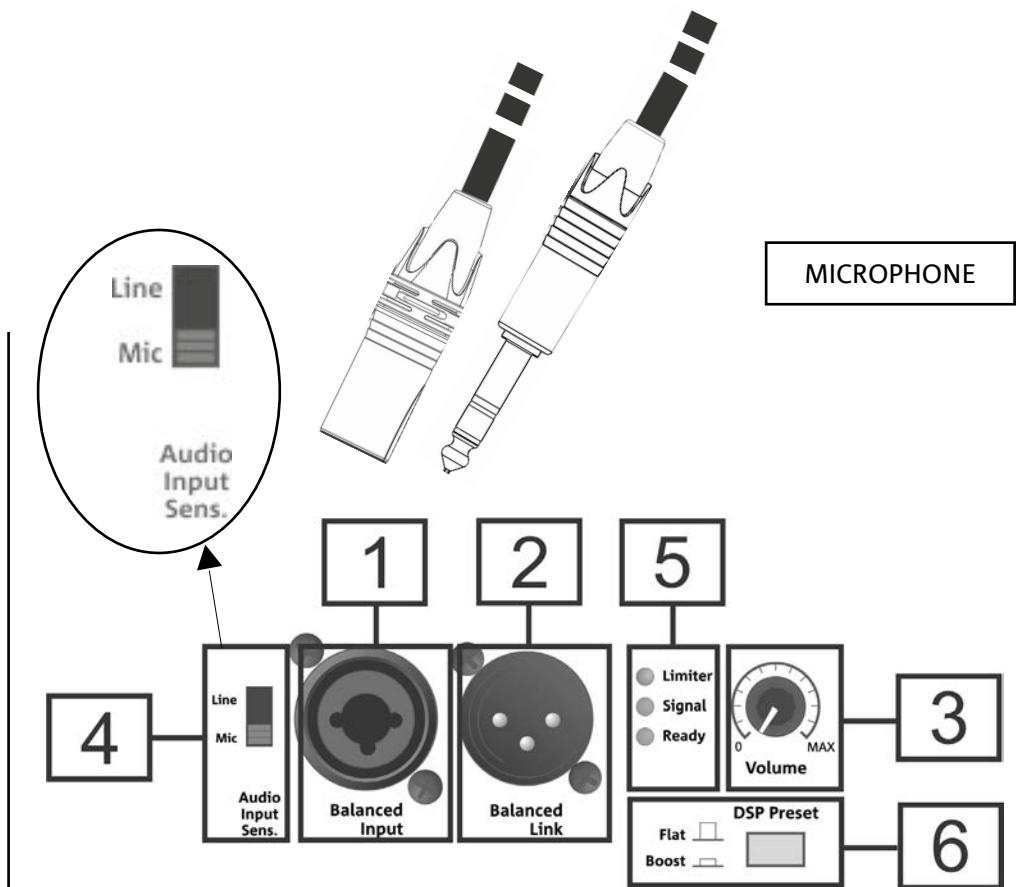
- B-HYPE speaker
- VDE power cable
- quick start user manual and warranty documents

CONNECTION OF AN INPUT

For the input connection of a mixer or an instrument with line impedance, select the position "LINE" of "Input Audio Sensitivity" selector. It is possible to connect a cable with both XLR and TRS male connector.

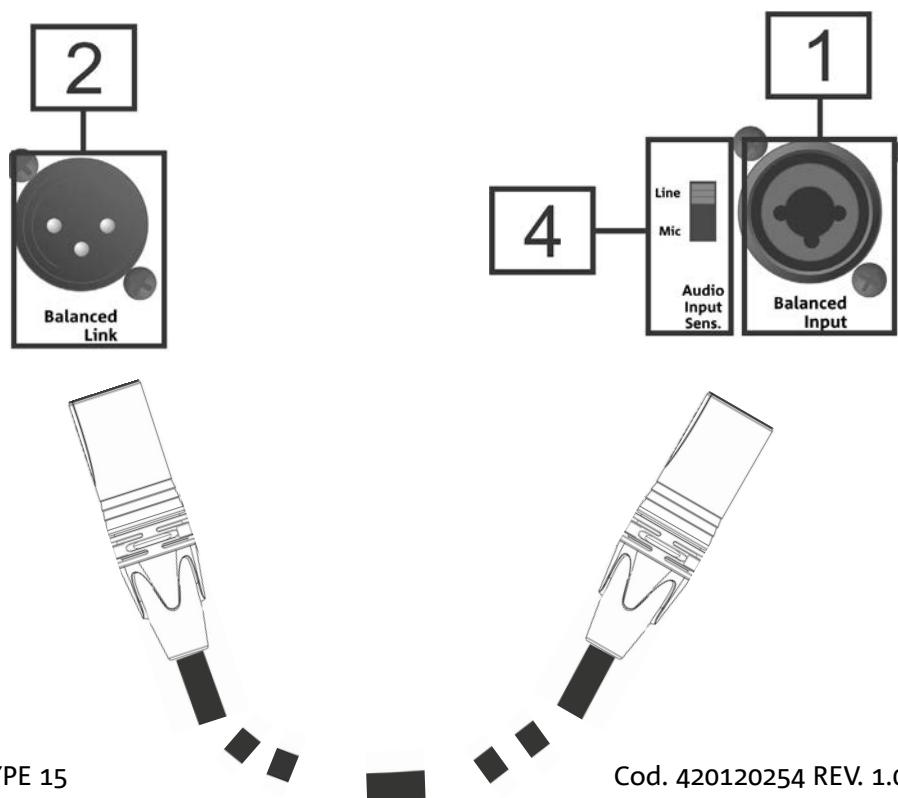


For the input connection of a microphone, select "MIC" position of "Input Audio Sensitivity" selector. It is possible to use a cable with both XLR and TRS male connector.

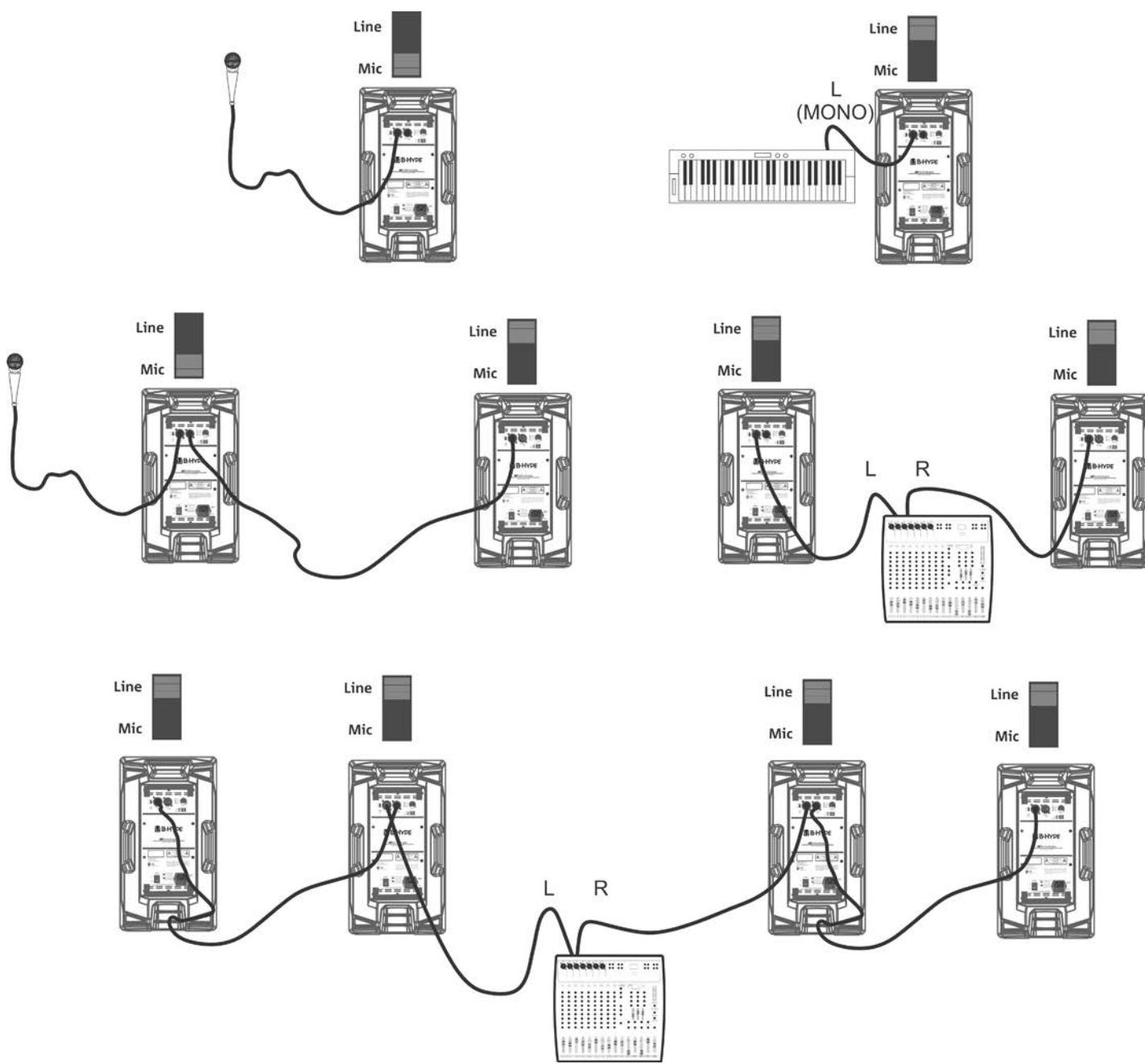


CONNECTING THE OUTPUT OF MULTIPLE MODULES (audio daisy chain)

For the audio daisy chain to a second B-HYPE speaker, use a cable with XLR male-female connector. Insert the female connector into the "Balanced Link" output of the first speaker, and the male connector into the "Balanced Input" of the second speaker. It is necessary to select the "LINE" position of "Audio Input Sensitivity" on the second B-HYPE. Please find some examples of connections in the next page.



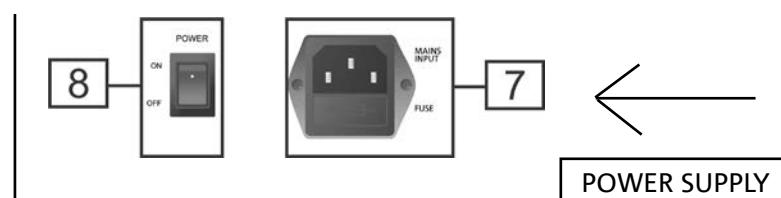
Cod. 420120254 REV. 1.0



Examples of connections with the relevant Audio Input Sensitivity position

POWER SUPPLY CONNECTION

For power supply connection of the device, insert the connector of the supplied cable into "MAINS INPUT" [7]. Then insert the plug into an outlet properly earthed. Switch the POWER selector [8] to "ON".



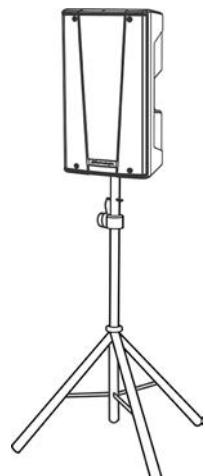
3. USAGE EXAMPLES



- Types of installation other than those here described are not allowed.
- Never use the handles to suspend the speaker
- Always check that the positioning is stable and that the installation does not pose a danger to people, animals or property.
- Perform the installation on a flat, not tilted surface, otherwise an additional safety fastening is mandatory.

USAGE ON STAND

1 B-HYPE speaker can be installed on a tripod stand, coming as standard option (accessory SSB2) with a 35 mm diameter pole. The maximum allowed height between the speaker base and the floor is 180 cm for B-HYPE 8, B-HYPE 10, 165 cm for B-HYPE 12, B-HYPE 15.



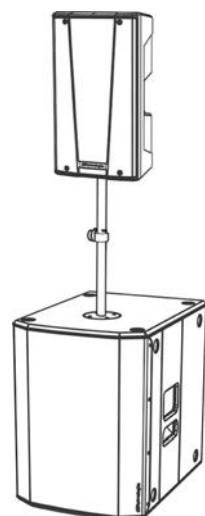
WARNING!

- Use a suitably sized stand with the central leg pointing forward to provide appropriate stability.

USAGE ON SUBWOOFER WITH POLE

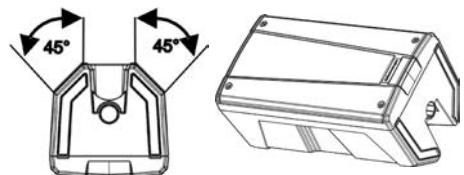
It is possible to use a single speaker installed on a 35 mm diameter pole (e.g. a SUB 600 series subwoofer). The reference accessory is DS-2 (telescopic pole).

The maximum allowed height between the speaker base and the floor is 165 cm for B-HYPE 8, B-HYPE 10, 120 cm for B-HYPE 12, B-HYPE 15. In case of DVA S08DP or SUB 28D subwoofer, an additional mechanical fastening or a belt fastening is required to correctly and safely fix the installation.



FLOOR USAGE AS A MONITOR

The cabinet rear 45° profiles allow to use B-HYPE as a monitor, as shown in the figure. Consider the asymmetric horn coverage for the correct sound coverage of the stage.



4. ACCESSORIES

To completion of the series, the following accessories are provided as options:

- Cover for transport of B-HYPE 8, 10, 12, 15, respectively:
-TC-BH8
-TC-BH10
-TC-BH12
-TC-BH15
- SSB2 tripod accessory
- DS-2 telescopic pole accessory

Check the new compatible accessories on: www.dbtechnologies.com

5. TROUBLESHOOTING

The speaker will not turn on:

1. Check that power supply is present upstream of the installation.
2. Ensure that the power supply cable with VDE connector is properly plugged in.

The speaker turns on but produces no sound:

1. Check that the input connection of the audio signal is correctly performed.
2. Check the cables for damage.
3. Ensure that the mixer or audio source is on and an output signal is present.
4. Check the general level through the "VOLUME" control.

Speaker sound is distorted or not sufficient:

1. Check the cables for damage and replace them as required (a damaged cable may lead to signal loss or alteration).
2. Check that the selection settings of "Audio Input Sensitivity" input are correct with respect to the source.

6. SPECIFICATIONS

GENERAL

| | |
|-------|----------------------|
| Type: | 2-way active speaker |
|-------|----------------------|

ACOUSTICAL SPECIFICATIONS

| | |
|-----------------------------|--|
| Frequency response [-10dB]: | 65 - 20k Hz (B-HYPE 8) / 55 - 20k Hz (B-HYPE 10) / 55 - 20k Hz (B-HYPE 12) / 51 - 20k Hz (B-HYPE 15) |
| Frequency response [-6dB]: | 70 - 19.6k Hz (B-HYPE 8) / 62 - 19.6k Hz (B-HYPE 10) / 61 - 19.5k Hz (B-HYPE 12) / 57 - 19.7k Hz (B-HYPE 15) |
| Max SPL: | 120 dB (B-HYPE 8) / 121 dB (B-HYPE 10) / 126 dB (B-HYPE 12) / 126.5 dB (B-HYPE 15) |
| HF compression driver: | 1" (output) |
| LF: | 8" (B-HYPE 8), 10" (B-HYPE 10), 12" (B-HYPE 12), 15" (B-HYPE 15) |
| LF voice coil: | 1.5" (B-HYPE 8 - 10) / 2" (12 - 15) |
| Crossover frequency: | 2300 Hz (B-HYPE 8 - 10) / 2100 Hz (B-HYPE 12 - 15) |
| Directivity: | Asymmetrical vertical - Differentiated horizontal |
| Coverage (HxV): | 85° - 120° x 80° (+25°/-60°) |

AMPLIFIER

| | |
|----------------------|--|
| Type: | AMP SMPS |
| Amplification class | Class D |
| Power supply | 1 x VDE |
| RMS amplifier power: | 260 W (B-HYPE 8 - B-HYPE 10) / 400 W (B-HYPE 12 - B-HYPE 15) |
| Crossover frequency: | 2300 Hz (B-HYPE 8 - 10) / 2100 Hz (B-HYPE 12 - 15) |
| Directivity: | Asymmetrical vertical - Differentiated horizontal |
| Coverage (HxV): | 85° - 120° x 80° (+25°/-60°) |

PROCESSOR

| | |
|----------------------|--|
| Internal controller: | 28-bit/56-bit DSP |
| A/D D/A converter: | 24 bit/48 kHz |
| Limiter: | Peak, RMS, Thermal |
| RMS amplifier power: | 130 W (B-HYPE 8 - B-HYPE 10) / 200 W (B-HYPE 12 - B-HYPE 15) |
| Crossover frequency: | 2300 Hz (B-HYPE 8 - 10) / 2100 Hz (B-HYPE 12 - 15) |
| Directivity: | Asymmetrical vertical - Differentiated horizontal |
| Coverage (HxV): | 85° - 120° x 80° (+25°/-60°) |

USER INTERFACE

| | |
|-----------|------------------------------------|
| Controls: | Volume, input selector, DSP preset |
|-----------|------------------------------------|

INPUTS & OUTPUTS

| | |
|----------------------|--|
| Input: | 1 x Combo (XLR/Jack) Balanced Input |
| Output: | 1x XLR Balanced Link |
| Limiter: | Peak, RMS, Thermal |
| RMS amplifier power: | 130 W (B-HYPE 8 - B-HYPE 10) / 200 W (B-HYPE 12 - B-HYPE 15) |
| Crossover frequency: | 2300 Hz (B-HYPE 8 - 10) / 2100 Hz (B-HYPE 12 - 15) |
| Directivity: | Asymmetrical vertical - Differentiated horizontal |
| Coverage (HxV): | 85° - 120° x 80° (+25°/-60°) |

POWER SUPPLY SPECIFICATIONS (ABSORPTION / INSTALLATION)

| | |
|--|---|
| Absorption at 1/8th of power in medium use conditions (*): | (B-HYPE 8 - BHYPE 10) 0.29 A (220-240V~) - 0.50 A (110-120V~) (B-HYPE 12 - BHYPE 15) 0.42 A (220-240V~) - 0.95 A (110-120V~) |
| Absorption at 1/3rd of power in maximum use conditions (**): | (B-HYPE 8 - BHYPE 10) 0.49 A (220-240V~) - 0.85 A (110-120V~) (B-HYPE 12 - BHYPE 15) 0.85 A (220-240V~) - 1.8 A (110-120V~) |
| Absorption with speaker on while idle: | (B-HYPE 8- BHYPE 10) 15 W / (B-HYPE 12- BHYPE 15) 20 W |
| Inrush current: | (B-HYPE 8- BHYPE 10) 12.03 A / (B-HYPE 12- BHYPE 15) 12.96 A |

* **NOTE FOR INSTALLER:** Values refer to 1/8th of power, under average operating conditions (music programme with occasional or no clipping). For any type of configuration we recommend to consider them as minimum sizing values.

** **NOTE FOR INSTALLER:** Values refer to 1/3rd of power, under heavy operating conditions (music programme with frequent clipping and limiter activation). In case of professional installations and tours we recommend sizing according to these values.

DIMENSIONS

| | |
|-------------|---|
| Material: | PP polypropylene |
| Grille: | NC-machined |
| Handles: | 3 (2 on sides, 1 on top) |
| Pole mount: | Yes, 36 mm |
| Width: | 243 mm (B-HYPE 8) 295 mm (B-HYPE 10) 350 mm (B-HYPE 12) 415 mm (B-HYPE 15) |
| Height: | 443 mm (B-HYPE 8) 544 mm (B-HYPE 10) 645 mm (B-HYPE 12) 725 mm (B-HYPE 15) |
| Depth: | 231 mm (B-HYPE 8) 283 mm (B-HYPE 10) 330 mm (B-HYPE 12) 391 mm (B-HYPE 15) |
| Weight: | 6.6 kg (B-HYPE 8) 9 kg (B-HYPE 8) 13.9 kg (B-HYPE 8) 17.4 kg (B-HYPE 8) |

Product features, specifications and appearance are subject to changes without prior notice. dBTechnologies reserves the right to make changes or improvements in design or manufacture without any obligation to incorporate such changes or improvements in products manufactured before their introduction.



A.E.B. Industriale Srl
Via Brodolini, 8
Località Crespellano
40053 VALSAMOGGIA
BOLOGNA (ITALY)

Tel +39 051 969870
Fax +39 051 969725

www.dbtechnologies.com
info@dbtechnologies-aeb.com