



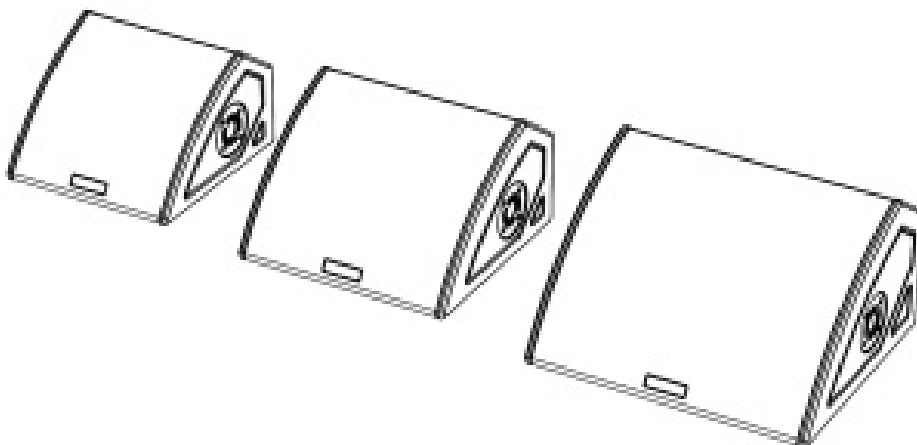
dB Technologies FLEXSYS FMX10 Active PA Speaker User Manual

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FLEXSYS
FMX10

FLEXSYS
FMX12

FLEXSYS
FMX15



USER MANUAL – Section 1

The warnings in this manual must be observed together with the „USER MANUAL – Section 2“

**FCC CLASS B STATEMENT ACCORDING TO TITLE 47, CHAPTER I,
SUBCHAPTER A, PART 15, SUBPART B**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to use the equipment.

WARNING

Make sure that the loudspeaker is securely installed in a stable position to avoid any injuries or damages to persons or properties. For safety reasons do not place one loudspeaker on top of another without proper fastening systems. Before hanging the loudspeaker check all the components for damages, deformations, missing or damaged parts that may compromise safety during installation. If you use the loudspeakers outdoor avoid spots exposed to bad weather conditions. Contact dBTechnologies for accessories to be used with the speakers. dBTechnologies will not accept any responsibility for damages caused by inappropriate accessories or additional devices.

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GENERAL INFORMATION

WELCOME!

Thanks for purchasing a product designed and developed in Italy by dBTechnologies! These monitors are the product of a long experience in the sound reinforcement industry. They make use of optimized sound, electronic

PRODUCT OVERVIEW

The FMX line, with its optimized acoustic performance over an extended frequency range, is a high-end line for stage monitors.

Its main features are:

- coaxial configuration
- enhanced versatility, offering two positions when used as a stage monitor or installed on a tripod stand as a PA amplification system
- ease of handling and quick configuration thanks to presets that can be set from the amplifier panel to suit specific application

USER REFERENCE

To make the most of your VIO loudspeaker, 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

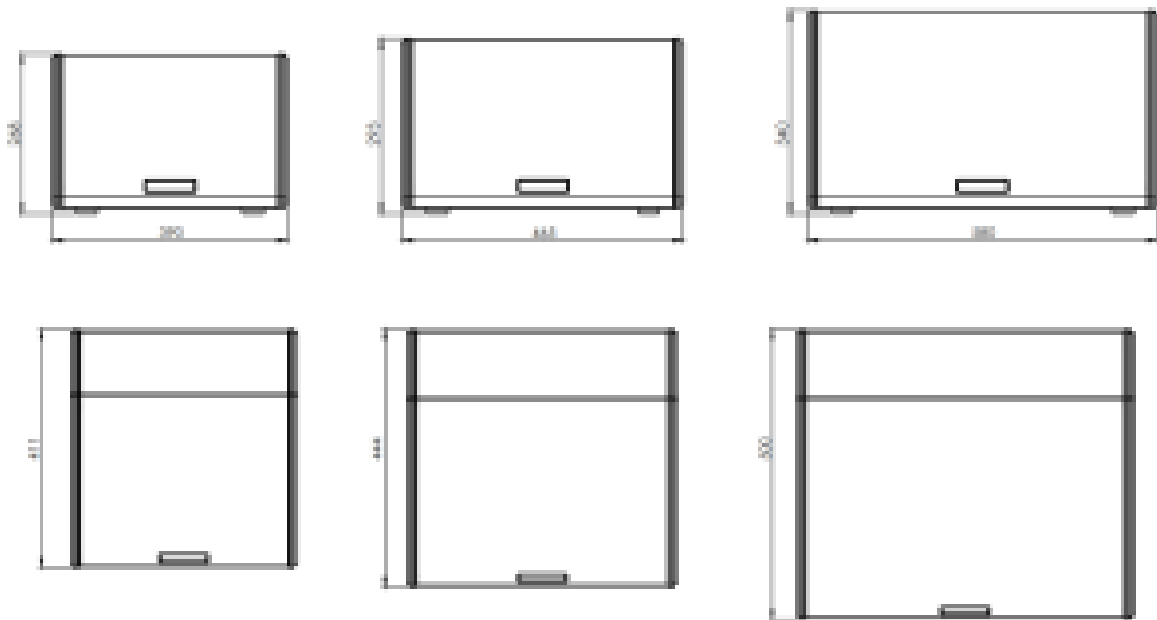
DIMENSIONS

The dimensions are:

390 mm (L), 268 mm (H), 411 mm (W) [FMX10],

465 mm (L), 297 mm (H), 444 mm (W) [FMX12],

500 mm (L), 340 mm (H), 500 mm (W) [FMX15]



SOUND COVERAGE

The monitor's particular dispersion ensures 90 x 60° coverage. This ensures good dispersion performance in all use configurations, including vertical arrangement. The coaxial configuration provides excellent off-axis coverage and excellent sound results at a close listening distance. Also to be noted is the rotary horn, for even greater versatility of use.

PACKAGE CONTENTS

When you open the FMX loudspeaker package, ensure that all contents are present. The package contains:

- FMX series monitor
- power supply cable with VDE connector
- quick start user manual and warranty documents

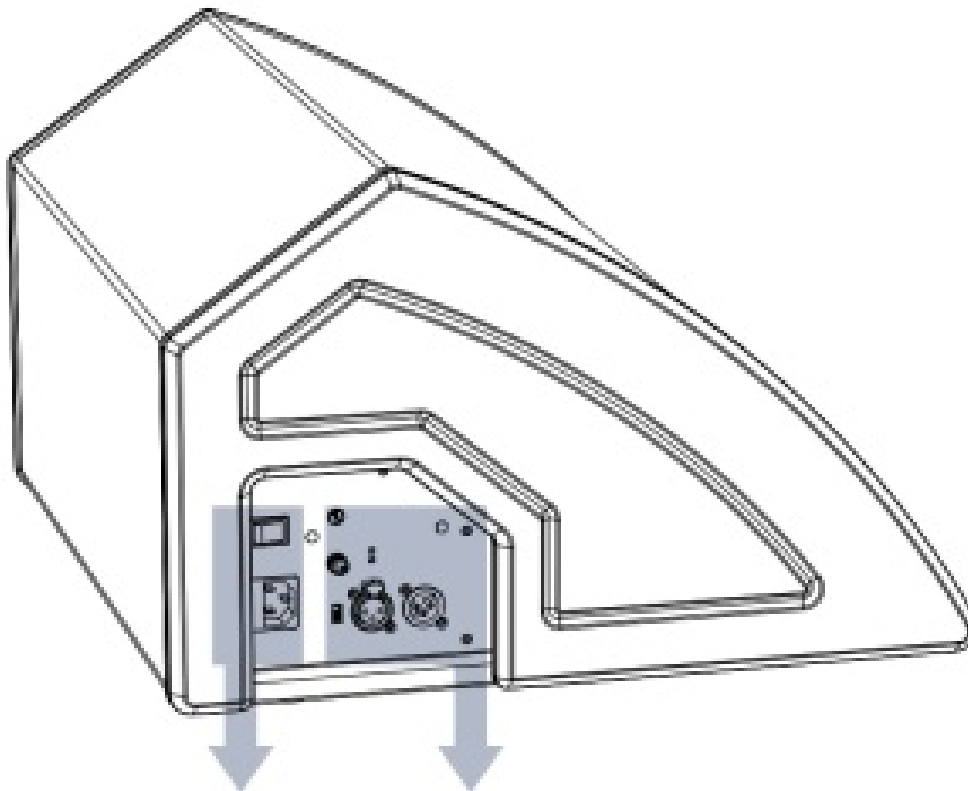
FEATURES OF THE AMPLIFIER AND CONTROL SECTIONS

The class D amplifier is the heart of the FMX monitor.

It allows delivering up to 400 W RMS [FMX 10] and 600 W RMS [FMX12-15]

The operation is silent and efficient and does not require an active ventilation system.

The system is controlled by a powerful DSP allowing an immediate and simple configuration in any context of use.

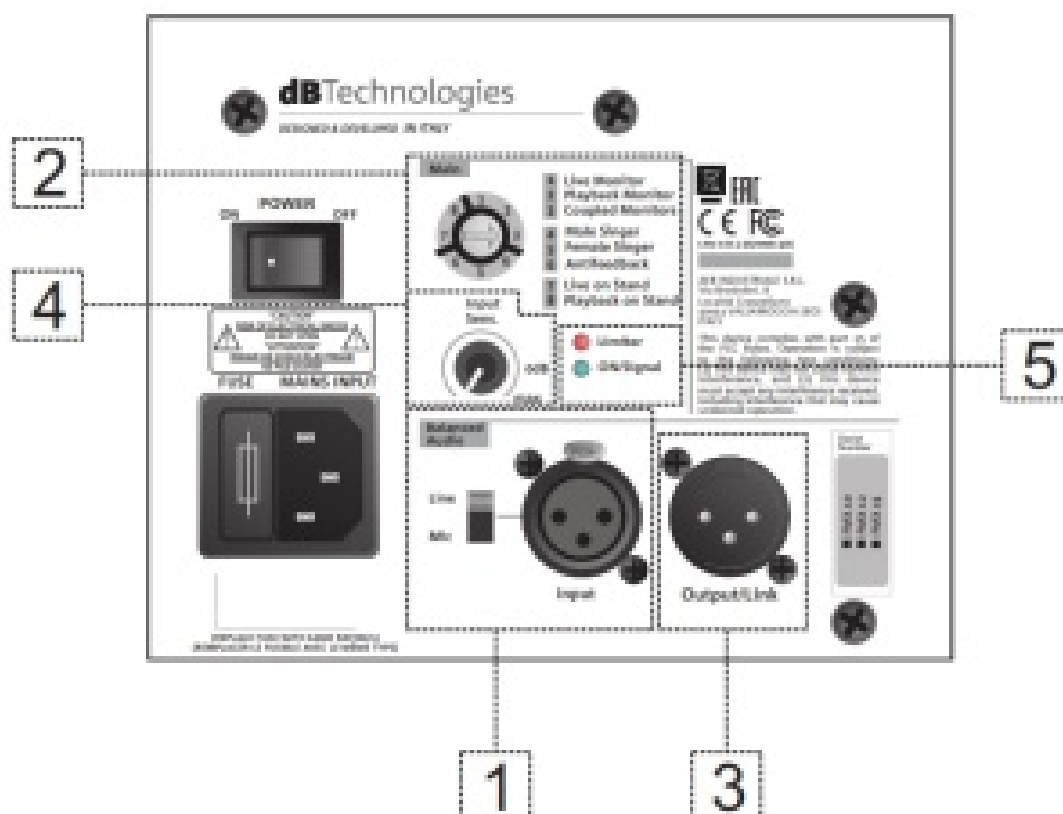


POWER SUPPLY SECTION CONTROLLO INPUT, OUTPUT AND CONTROL SECTION

The panel positioned on the subwoofer backside is made up of:

- Input, Output, and Control Section
- Power Supply Unit Section

INPUT, OUTPUT, AND CONTROL SECTION



1. **AUDIO INPUT** (“Balanced audio Input”) with Mic/Line input selector.

Input compatible with balanced XLR cables. Used for the input connection of the audio signal coming from the mixer (selector set to “Line”) or from a microphone (selector set to “Mic”).

2. **MAIN PRESET**

Rotary switches to set the presets based on application and context of use.

3. **AUDIO OUTPUT** (“Output/Link”)

Connector compatible with balanced cables with XLR connectors. It is used for the output connection, both directly and with the link to another monitor (Link).

4. **INPUT SENSITIVITY**

It allows adjusting the input sensitivity.

Before starting monitor and system configuration, set at 0 dB.

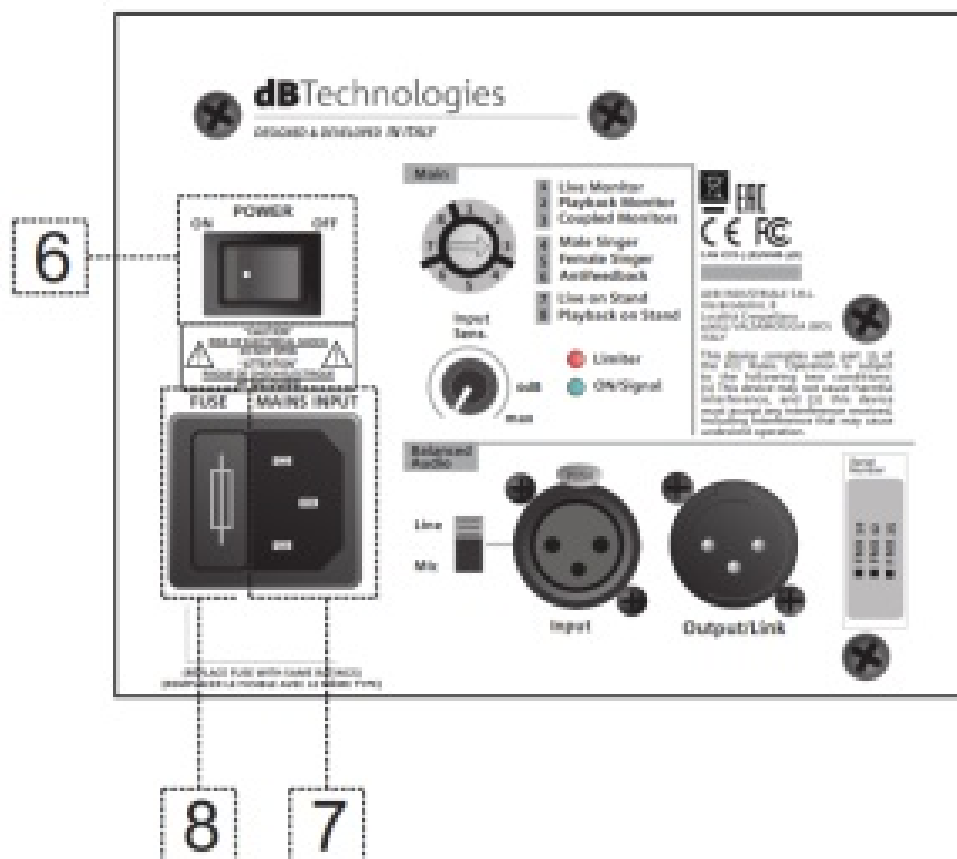
5. **STATUS LEDs** (“Status”)

LEDs relating to module operation.

Limiter: lights up in case of activation, and possibly provides a warning signal – to be checked – with cyclic flashing.

ON/Signal: it lights up discontinuously/continuously signaling the presence of an input signal.

POWER SUPPLY UNIT SECTION



6. **POWER OFF**

On/off switch.

7. **VDE SOCKET**

It allows the insertion of the cable with a VDE connector.

8. **FUSE HOUSING**

Housing for the fuse.

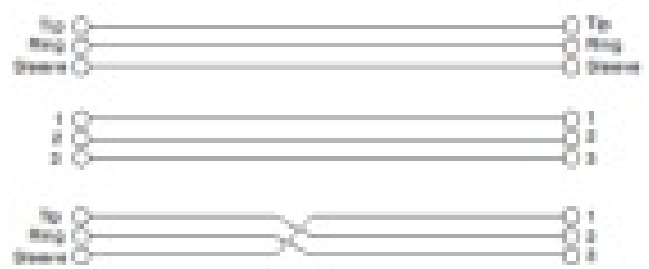
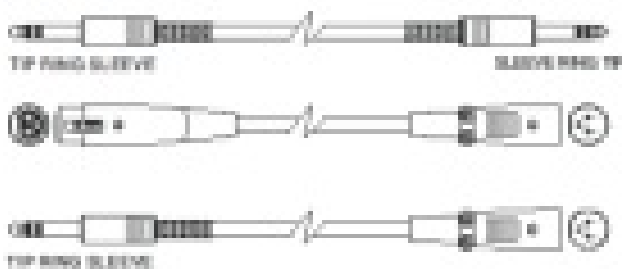


WARNING!

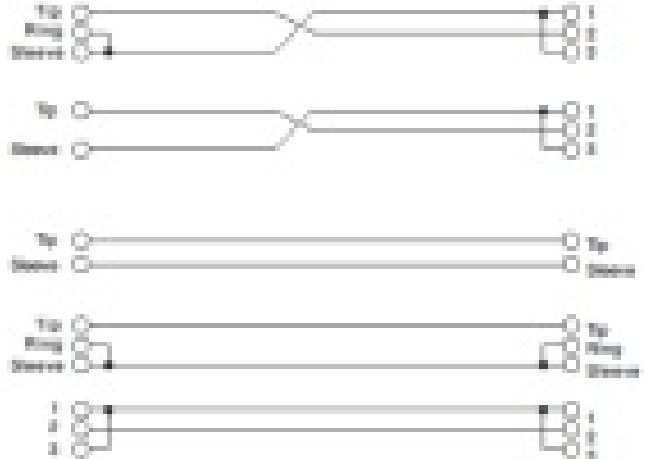
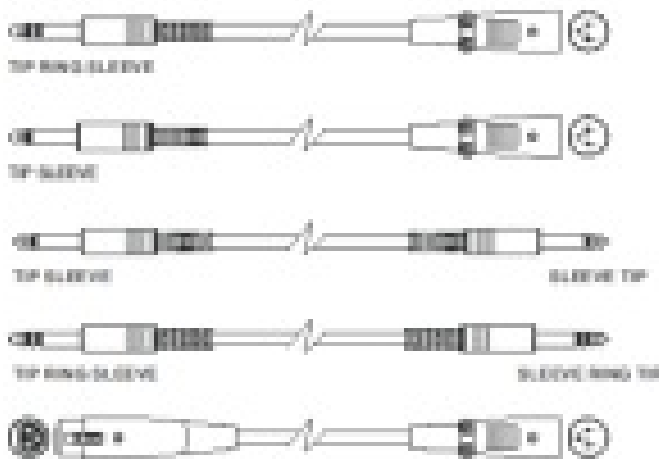
- The connectors of this section are also used as power switches.
- Do not obstruct the rear heat sinks of the amplifier. If the module heats up excessively, the audio volume is gradually reduced until the module is thermally stabilized. The audio is automatically restored when the normal operating temperature is reached.
- In the event of a malfunction, remove the power supply immediately and disconnect the module from the power mains. Contact an authorized repair center.
- Never attempt to disassemble the amplifier in any way.

Only use cables with original, high-quality Neutrik® connectors. Periodically check their integrity.

* Balanced



* Unbalanced



INSTALLATION AND CONFIGURATION



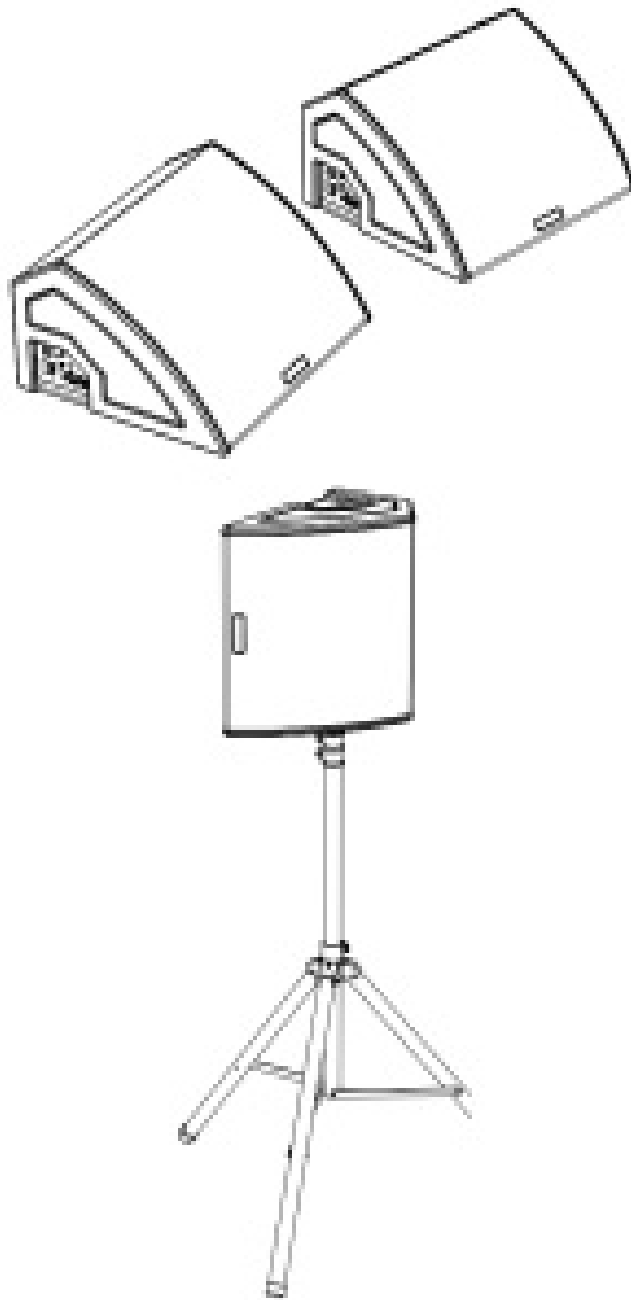
WARNING!

The product and accessories must be handled by experienced personnel only! Make sure that the installation is positioned in a stable and safe manner in order to avoid hazardous conditions for people, animals, and/or objects. The user is required to follow regulations and mandatory laws on the safety of the country in which the product is used. For safe use, regularly check the operation of all parts and integrity before use.

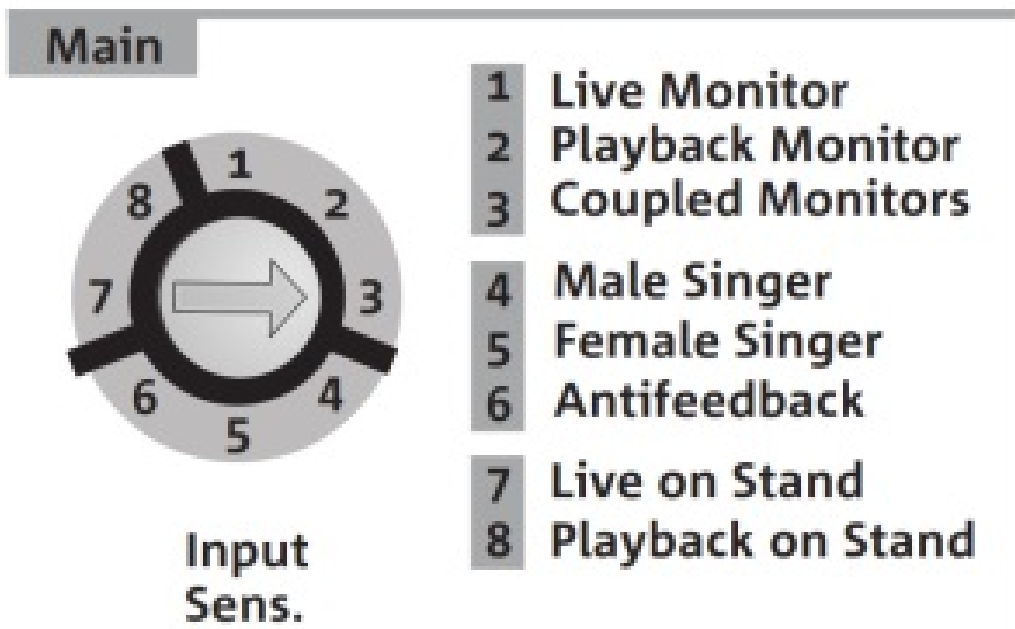
Design, calculations, installation, testing, and maintenance of suspended systems or professional audio stacks must be performed by authorized personnel only. AEB Industriale is not responsible for improper installations, non-compliant with safety requirements.

INSTALLATION

Monitor conventional floor installation is extended by the possibility of vertical configuration on a tripod stand. In the latter case, please ensure that the central foot is positioned forwards. For this type of installation, use an additional fastener (not supplied).



CONFIGURATION



The possible DSP configurations are:

1. Live Monitor, for the traditional live use on stage
2. Playback Monitor, for a music program playback
3. Coupled Monitors, to use several monitors at the same time
4. Male Singer, for the reproduction of male singing
5. Female Singer, for the reproduction of female singing
6. Anti feedback, with equalization designed to prevent the Larsen effect
7. Live on Stand, for live use in stand configuration (vertical)
8. Playback on Stand, for a music program playback in the stand configuration

TROUBLESHOOTING

The monitor does not turn on:

1. Check that the power supply is present upstream of the installation.

The monitor turns on but produces no sound:

1. Check that the audio signal input connections or the audio signal re-links are properly carried out.
2. Check that the Input Sensitivity is set to 0 dB.
3. Check that the audio source (mixer) is properly connected and active.

SPECIFICATIONS

GENERAL INFORMATION

| | |
|-------|------------------------|
| Type: | Active coaxial monitor |
|-------|------------------------|

ACOUSTICAL SPECIFICATIONS

| | |
|-------------------------------|--|
| Frequency response [- 6 dB]: | 65 – 16.5 kHz [10] / 56 – 15.5 kHz [12] / 50 – 15.5 kHz [15] |
| Frequency response [- 10 dB]: | 57 – 19 kHz [10] / 52 – 19 kHz [12] / 46 – 19 kHz [15] |
| Max SPL (1 m): | 125 dB [10-12] / 128 dB [15] |
| HF: | 1" (V.C.: 1") [10] / 1" (V.C.: 1.3") [12-15] – |
| LF: | 10" – 12" – 15" (V.C.: 2") |
| Crossover frequency: | 1800 Hz [10] – 1740 Hz [12-15] |
| Coverage: | 60° x 90° |

AMPLIFIER

| | |
|----------------------------|-----------------------------|
| Amplification class: | Class D |
| Amplification power (Peak) | 800 W [10] – 1200 W [12-15] |
| Amplification power (RMS): | 400 W [10] – 600 W [12-15] |
| Cooling technique: | Convection |

PROCESSOR

| | |
|----------------------|----------------------|
| Internal controller: | DSP 28/56 bit 48 kHz |
| Limiter: | Peak, RMS, Thermal |

USER INTERFACE

| | |
|-----------------|--|
| Indicator LEDs: | Limiter, Signal, Mute/prot, Ready |
| Controls | Sensitivity / Preset / Line-Mic switch |

INPUTS AND OUTPUTS

| | |
|----------------------|---|
| Power supply inputs: | VDE |
| Audio inputs: | 1x XLR IN balanced (insulation: Floating ADC) |
| Audio outputs: | 1x XLR link OUT balanced, HPF Xover audio |

POWER SUPPLY SPECIFICATIONS (ABSORPTION)

| | |
|--|--|
| Absorption at 1/3rd of power in maximum use conditions (**): | 0.8 A (220-240V~) – 1.4 A (100-120V~) [12] 1.2 A (220-240V~) – 2 A (100-120V~) [15] |
|--|--|

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

according to these values.

MECHANICAL SPECIFICATIONS


| | |
|----------|---|
| Material | cabinet made from painted plywood |
| Grille: | full metal – CNC machining |
| Handles: | integrated (1x side) |
| Width: | 390 mm [10] – 465 mm [12] – 500 mm [15] |
| Height: | 268 mm [10] – 297 mm [12] – 340 mm [15] |
| Depth: | 411 mm [10] – 444 mm [12] – 500 mm [15] |
| Weight: | 11.3 kg – 13.9 kg – 16.9 kg |

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 previously manufactured products.



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Documents / Resources

| | |
|---|---|
|  | dB Technologies FLEXSYS FMX10 Active PA Speaker [pdf] User Manual FLEXSYS FMX10, FLEXSYS FMX12, FLEXSYS FMX15, Active PA Speaker |
|---|---|