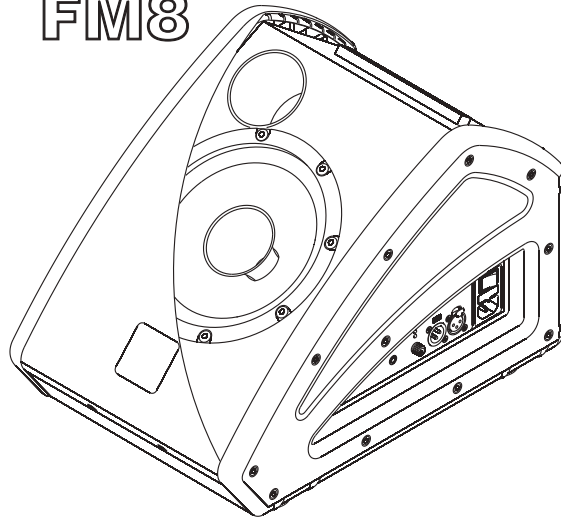


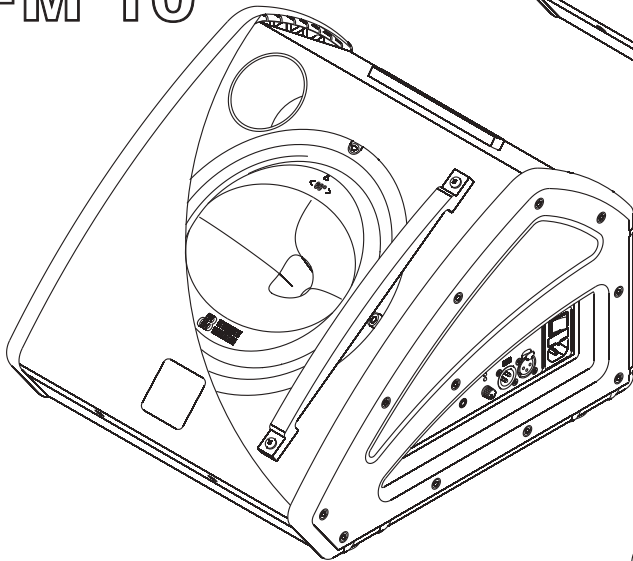
FLEXSYS

ACTIVE COAXIAL STAGE MONITORS

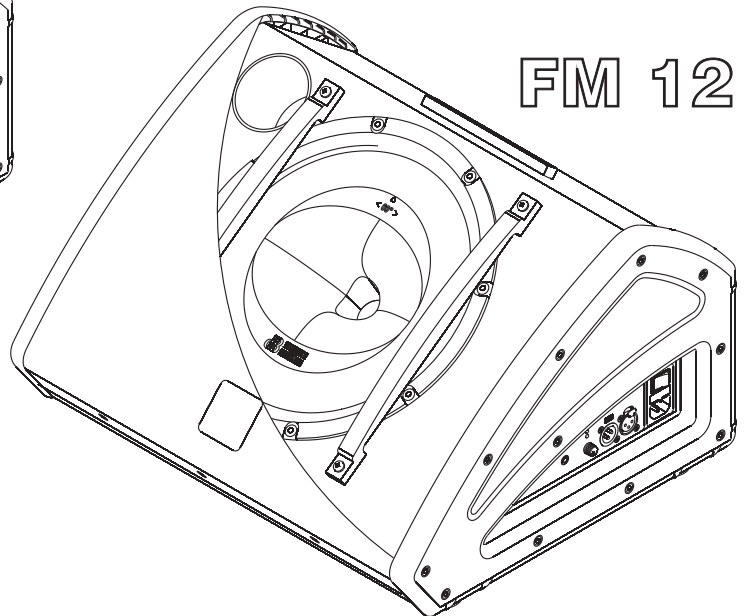
FM8



FM 10



FM 12



MANUALE D'USO - Sezione 1

USER MANUAL - Section 1

BEDIENUNGSANLEITUNG - Abschnitt 1

CARACTERISTIQUES TECHNIQUES - Section 1

CE DESIGNED & DEVELOPED in ITALY
Made in China

COD. 420120180



FLEXSYS MONITOR - FM series

DESCRIPTION

The coaxial stage monitors of the “FLEXSYS FM” series are low profile loudspeakers realized with Hybrid Enclosure Technology (H.E.T.), developed by the dB Technologies labs. The box in fact is made in light multilayer wood, coated in PVC and the sides are in polypropylene.

The coaxial stage monitors of the “FLEXSYS FM” series use multichannel digital power amplifiers of last generation DIGIPACK .

These highly efficient amplifiers provide high power with limited weight and dimension. Thanks to the low power dissipated, the cooling of the amplifier module does not require a fan.

The digital preamplifier with DSP (Digital Signal Processing) controls the audio crossover of the acoustic components, the frequency response, the limiter, and the phase alignment.

The correct switch on of the amplifier is guaranteed by an initialization procedure; during this test stage the LEDs (“LIMITER” and “ON SIGNAL”), located on the amplifier module, stay on together for approx. 2 sec.

At the end of the switch on procedure, on the amplifier module, the “ON SIGNAL” green LED flashes slowly, when there is signal absence.

During normal operation the “ON SIGNAL” green LED serves as Vu-meter monitoring the audio level reproduced.

The "LIMITER" red LED lights up to indicate that the internal limiter circuit has tripped to prevent amplifier distortion and protects the speakers against overloads.

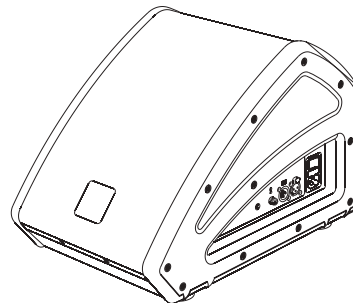
FLEXSYS FM8

The FLEXSYS FM8 active coaxial stage monitor is equipped with digital amplifier delivering 75W RMS for the bass section and 25W RMS for the high frequency section.

The speaker is equipped with 8” coaxial woofer (2” voice coil) and 1” Neodymium driver (1” voice coil) loaded with 60°x60° horn.

The speaker is realized with hybrid technology H.E.T. (Hybrid Enclosure Technology): box made in lighter plywood PVC coated, sides in polypropilene , and is provided with a handle, on bottom side, which eases transportation.

In the left side of box there is a standard pole mount cup (D36mm).



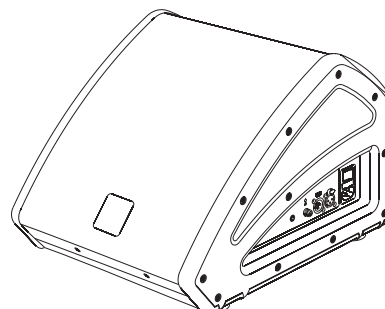
FLEXSYS FM10

The FLEXSYS FM10 active coaxial stage monitor is equipped with digital amplifier delivering 160W RMS for the bass section and 40W RMS for the high frequency section.

The speaker is equipped with 10” coaxial woofer (2” voice coil) and 1” Neodymium driver (1” voice coil) loaded with asymmetric 60°x90° horn.

The speaker is made with hybrid technology H.E.T. (Hybrid Enclosure Technology): box made in lighter plywood PVC coated, sides in polypropilene , and is provided with a handle, on bottom side, which eases transportation.

In the left side of box there is a standard pole mount cup (D36mm).



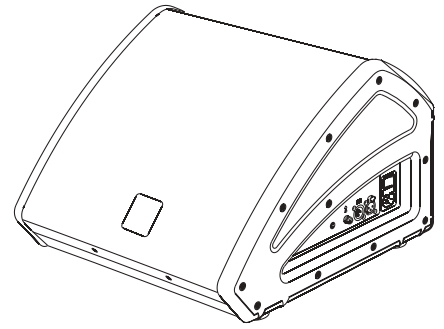
FLEXSYS FM 12

The FLEXSYS FM 12 active coaxial stage monitor is equipped with digital amplifier delivering 240W RMS for the bass section and 60W RMS for the high frequency section.

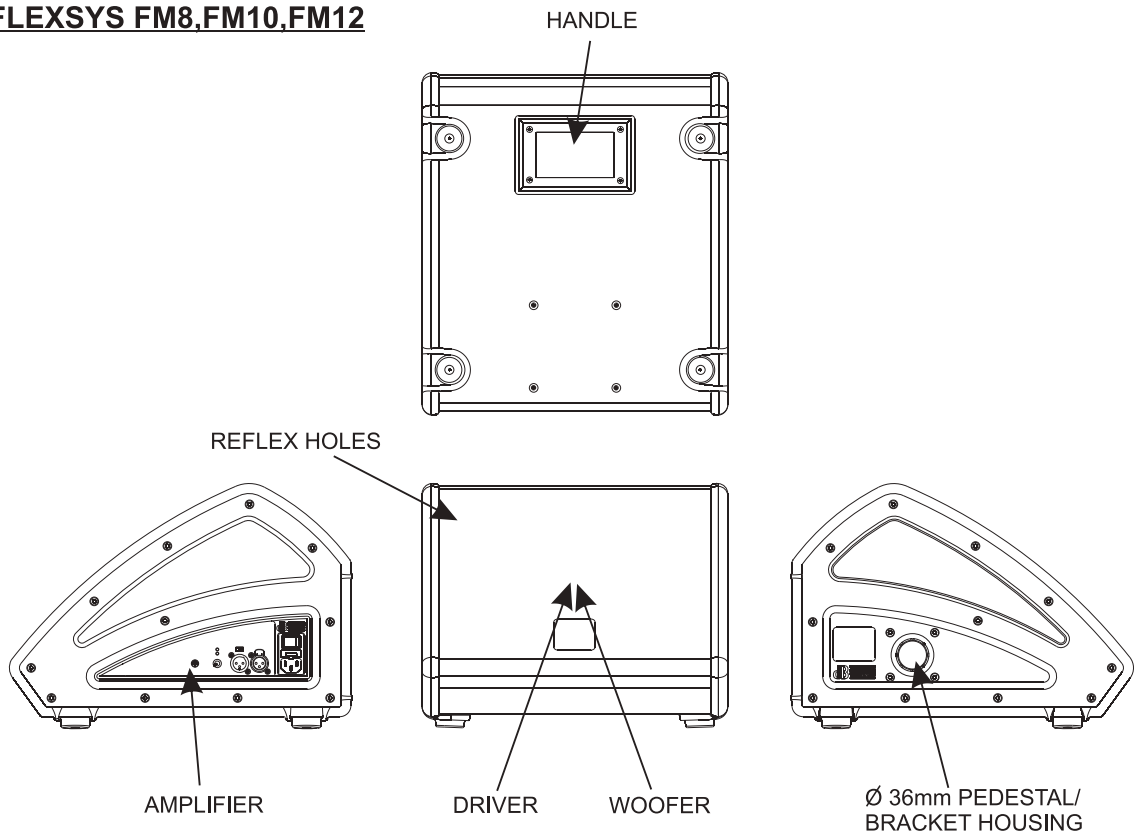
The speaker is equipped with 12" coaxial woofer (2" voice coil) and 1" Neodymium driver (1,3" voice coil) loaded with asymmetric 60°x90° horn.

The speaker is made with hybrid technology H.E.T. (Hybrid Enclosure Technology): box made in lighter plywood PVC coated, sides in polypropilene, and is provided with a handle, on bottom side, which eases transportation.

In the left side of box there is a standard pole mount cup (D36mm).



FLEXSYS FM8,FM10,FM12



COMMANDS AND FUNCTIONS

AMPLIFIER PANEL (Ref. page 22)

- 1) **“BALANCED INPUT” (XLR), “LINK” (XLR/JACK 6,3mm) CONNECTORS**
These balanced inputs can be used to connect balanced or unbalanced microphones or audio sources at line level (0dB) (eg. preamplifier, mixer, recorder, CD player, musical instrument, ...).
The balanced connector is connected in parallel and can be used to send the audio signal to other amplified speakers, recorders or supplementary amplifiers.
- 2) **“LIMITER” INDICATOR LIGHT**
This indicator shows red to indicate that the internal limiter circuit has tripped.
This prevents amplifier distortion and protects the speakers against overloads.
- 3) **“ON SIGNAL” INDICATOR LIGHT**
This indicator light comes on green to indicate that the amplifier is switched on and it is working properly. The “ON SIGNAL” green LED flashes slowly, when there is signal absence. During normal operation the LED serves as Vu-meter monitoring the audio level reproduced.
- 4) **“SENSITIVITY” CONTROL**
The knob regulates the speaker’s volume.
This control does not affect the output “LINK” levels.
- 5) **“INPUT SENS” SWITCH**
Position the switch in LINE to use a line level source (0 dB) or MIC to use a microphone.
- 6) **EQUALIZATION “DSP SETUP” SELECTOR**
This control enables to select the suitable equalization for loudspeaker use.
It is possible to select one of 8 different presets:
1 - LIVE MONITOR.
For use during live performances with the loudspeaker positioned as monitor.
recommended for musicians and singers.
2 - PLAYBACK MONITOR.
For musical playback (MP3 players, CDs, etc.), even in a live location with loudspeaker in monitor position. Low and high frequencies are emphasized.
3 - COUPLED MONITORS.
For use of multiple loudspeakers side by side. The coupling effect of the loudspeakers is optimized.
4 - MALE SINGER.
Designed for male voices since it emphasizes the medium-low frequencies, minimizing the feedback of the low frequencies.
5 - FEMALE SINGER.
Designed for female voices since it emphasizes the medium-high frequencies, giving the voices a sharp effect. The feedback is strongly limited.
6 - ANTIFEEDBACK.
Specifically designed for cardioid and hypercardioid microphones. It significantly minimizes the feedback due to the proximity effect, both on low and high frequencies.
7 - LIVE ON STAND.
Suitable for loudspeakers located on stands, optimized for live performance.
8 - PLAYBACK ON STAND.
For use with loudspeaker on stand, specifically designed for musical playback (MP3 players, CDs, etc.).
- 7) **POWER SWITCH “POWER”**
This switch can be used to switch the speaker on and off.
- 8) **FUSE CARRIER “FUSE”**
Mains fuse housing. Replace only with identical value!
- 9) **POWER CABLE SOCKET “MAINS”**
Used for connecting the power cable supplied.

PROTECTIONS

Front Grille

The speakers's components in the box are protected by 1.5mm metal steel grille.

Cooling

Thermal control is provided by the internal DSP, by means of one sensor, controls the temperature of the amplifier, avoiding overheating by limiting the overall volume.

In case of overheating ($> 90^{\circ}\text{C}$) the volume decreases proportionally to the temperature increase, making the change unnoticeable.

The correct volume and all the functions are automatically restored when standard operating temperatures are reached.

LOUDSPEAKER INSTALLATION



WARNING

Make sure that the loudspeaker is securely installed in a stable position to avoid any injuries or damages to persons or property.

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 outdoors avoid places that are exposed to bad weather.

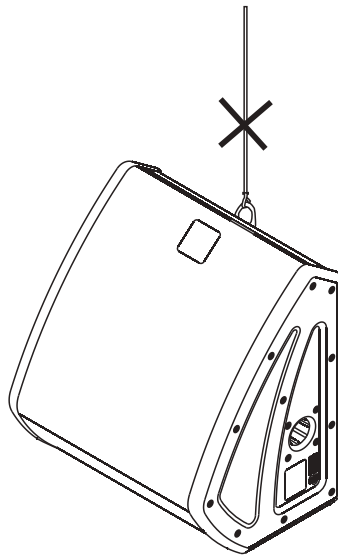
The loudspeaker has the following mounting options:

- bookshelf floor (monitor) (Fig.1-page 23)
- on speaker stands (Fig.2-page 24).



WARNING

Never use the handle to hang the speaker!



EMI CLASSIFICATION

According to the standards EN 55103 this equipment is designed and suitable to operate in E3 (or lower E2, E1) Electromagnetic Environments.

TECHNICAL SPECIFICATION

FM 8

Amp and processor

Power supply: Toroidal Transformer
Pre-Amp: 24bit 48KHz DSP
HF amp: Class-D 25 W/RMS
Bass amp: Class-D 75 W/RMS
Cooling: Convection, fan-free
Limiter: Peak, RMS, Thermal
X-over frequency: 1950 Hz, 24 dB/oct

Audio Data

Frequency response -3 dB: 85 Hz -20 kHz
Max SPL: 117 dB
Bass/midrange woofer: 1x8" Coaxial -2" voice coil
High frequency driver: 1x1" compression driver
Horn coverage: 1" voice coil Neodymium
60° x 60°

Input section

Signal input/link: XLR fem. Balanced
XLR male Balanced
Input sensitivity: -4dBu max
Mains connector: IEC, VDE
Inrush current: 9,7 A

Hardware

Pole mount: 36 mm on left side
Handles: one on bottom side
Grille: 1,5 mm Metal
Dimensions (W x H x D): 280 x 290 x 410mm
Weight: 9,8 kg

FM 10

Toroidal Transformer
24bit 48KHz DSP
Class-D 40 W/RMS
Class-D 160 W/RMS
Convection, fan-free
Peak,RMS, Thermal
1950 Hz, 24 dB/oct.

78 Hz - 20 kHz
120 dB
1x10" Coaxial -2" voice coil
1x1" compression driver
1" voice coil Neodymium
60° x 90°

XLR fem. Balanced
XLR male Balanced
-4dBu max
IEC, VDE
13,7 A

36 mm on left side
one on bottom side
1,5 mm Metal
370 x 290 x 410mm
12,8 kg

FM 12

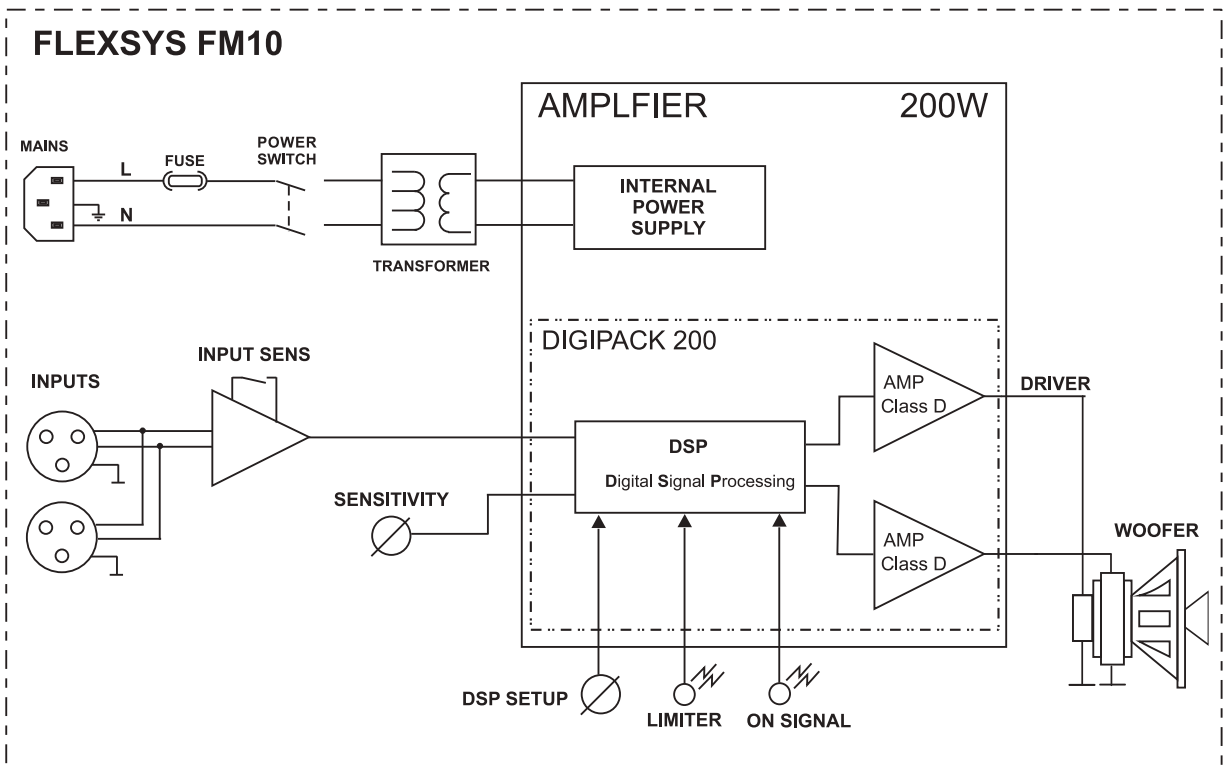
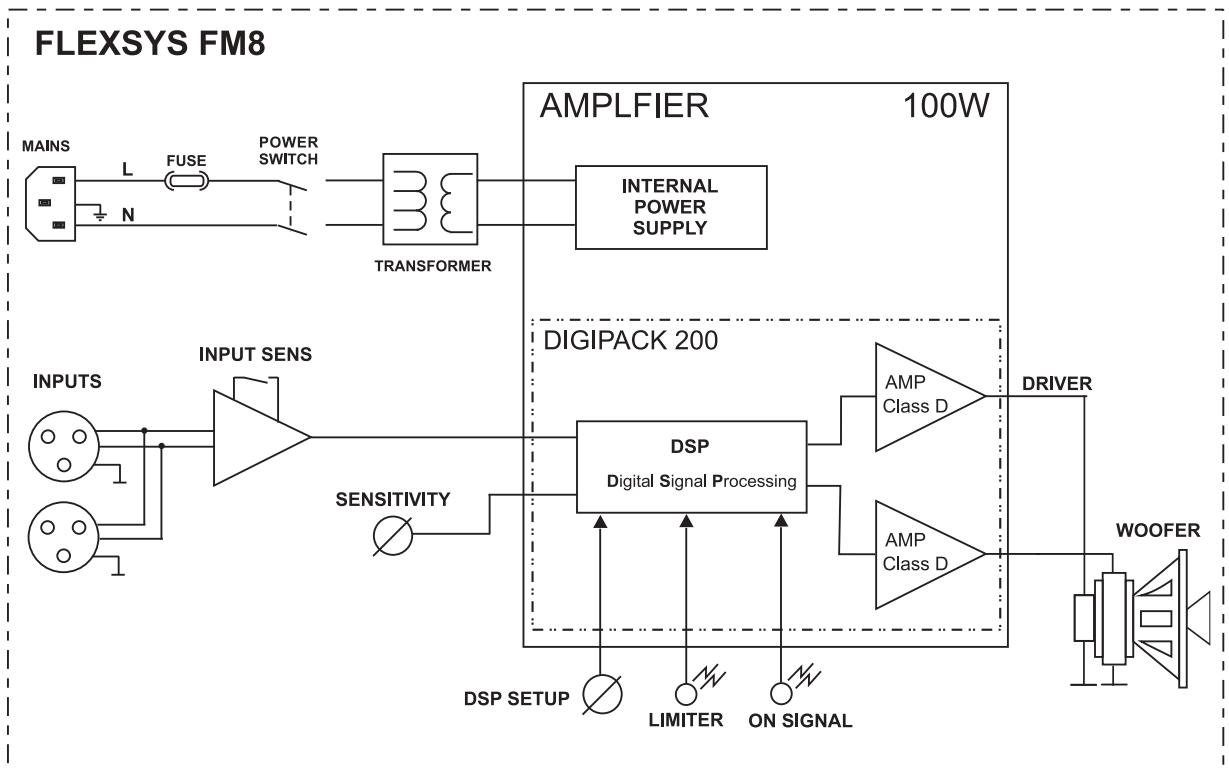
Toroidal Transformer
24bit 48KHz DSP
Class-D 60 W/RMS
Class-D 240 W/RMS
Convection, fan-free
Peak, RMS, Thermal
1850 Hz, 24 dB/ oct.

70 Hz - 20 kHz
126 dB
1x12" Coaxial -2" voice coil
1x1" compression driver
1,3" voice coil
60° x 90°

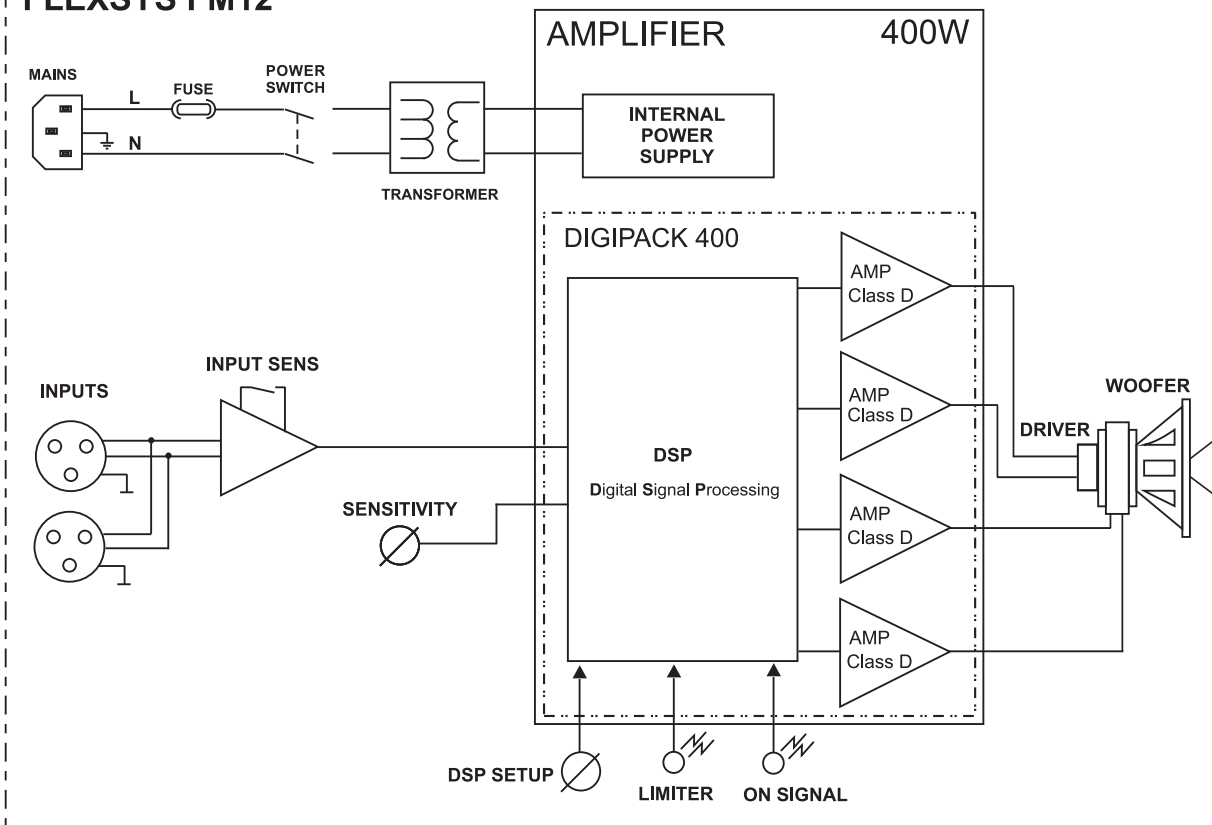
XLR fem. Balanced
XLR male Balanced
-4dBu max
IEC, VDE
14,8 A

36mm on left side
one on bottom side
1,5 mm Metal
450 x 290 x 410mm
17 kg

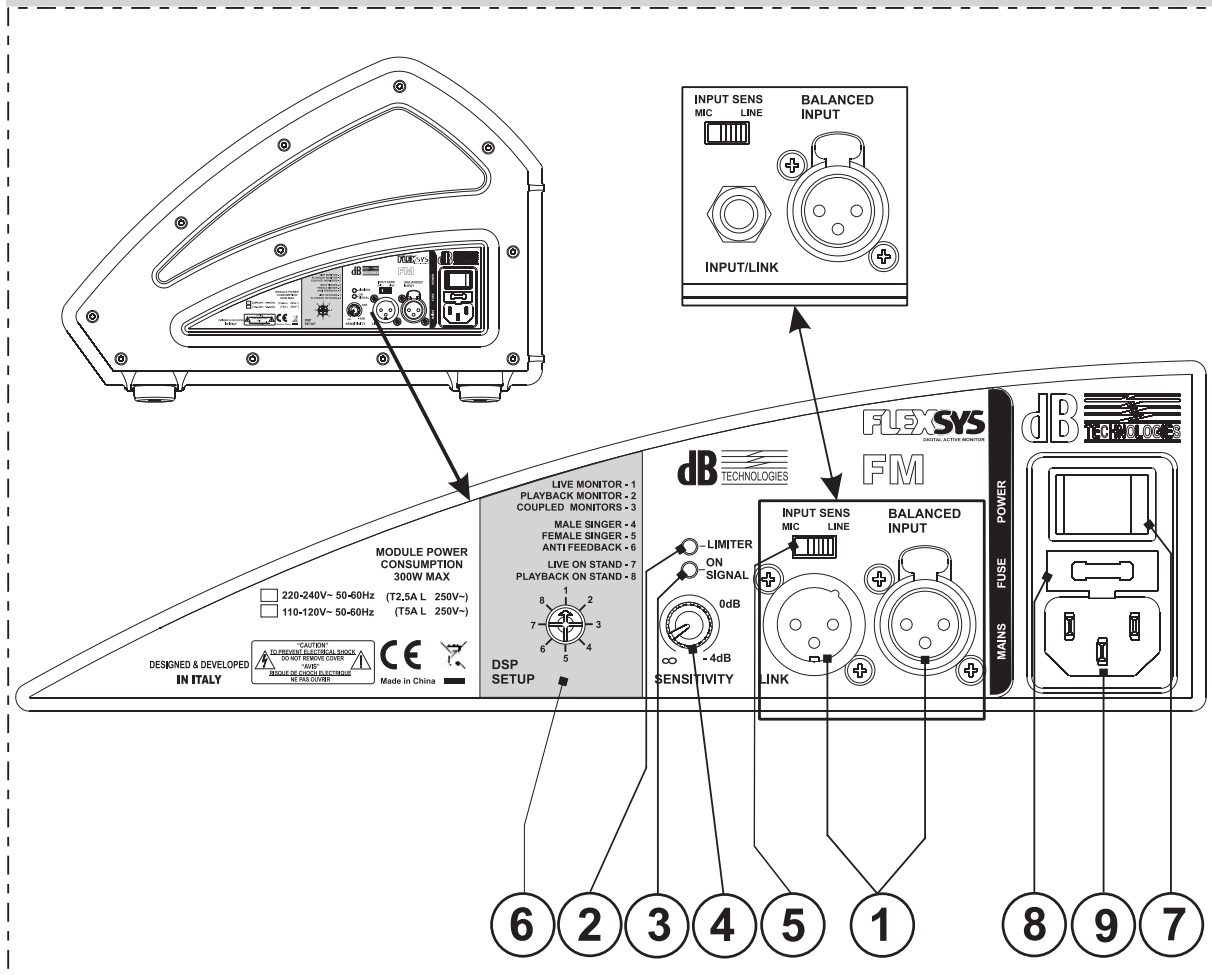
SCHEMA A BLOCCHI - BLOCK DIAGRAM
 BLOCKSCHALTBIID - SCHEMAS FONCTIONNELLS



FLEXSYS FM12



AMPLIFICATORE - AMPLIFIER VERSTÄRKER - AMPLIFICATEURS



UTILIZZO A PAVIMENTO (MONITOR)
FLOOR USES (MONITOR)
VERWENDUNG AUF DEM BODEN (MONITOR)
UTILISATION AU SOL (ÉCRAN)

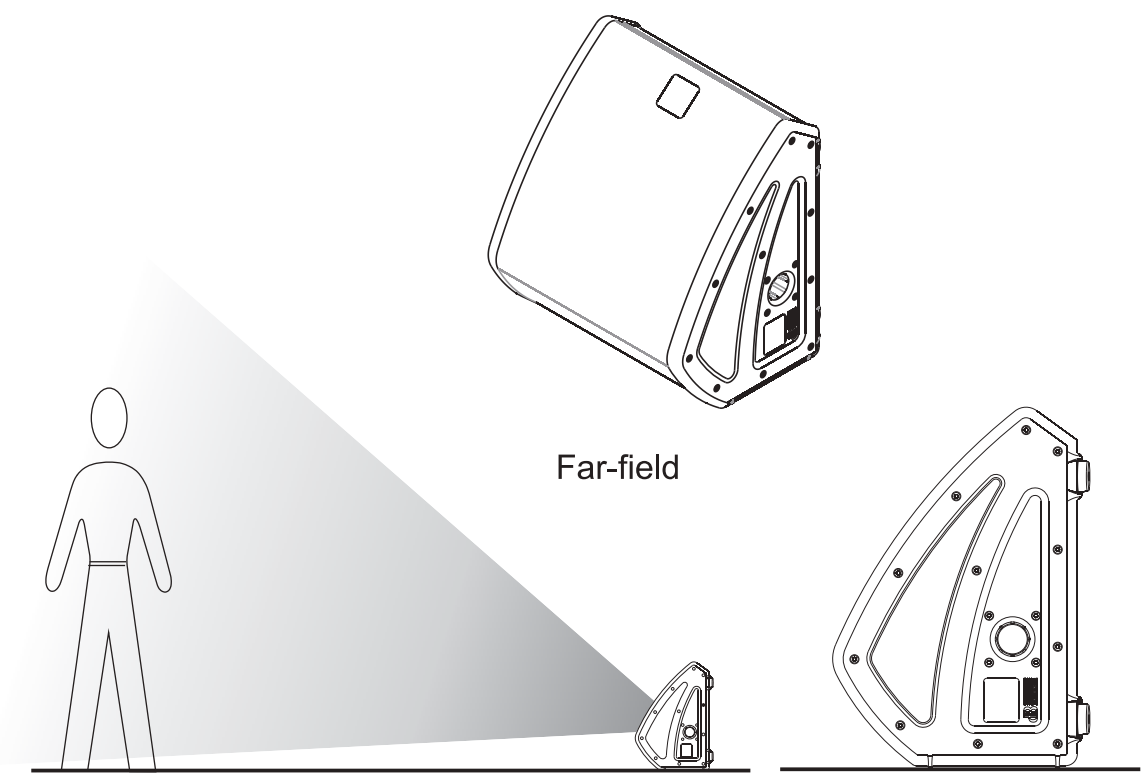
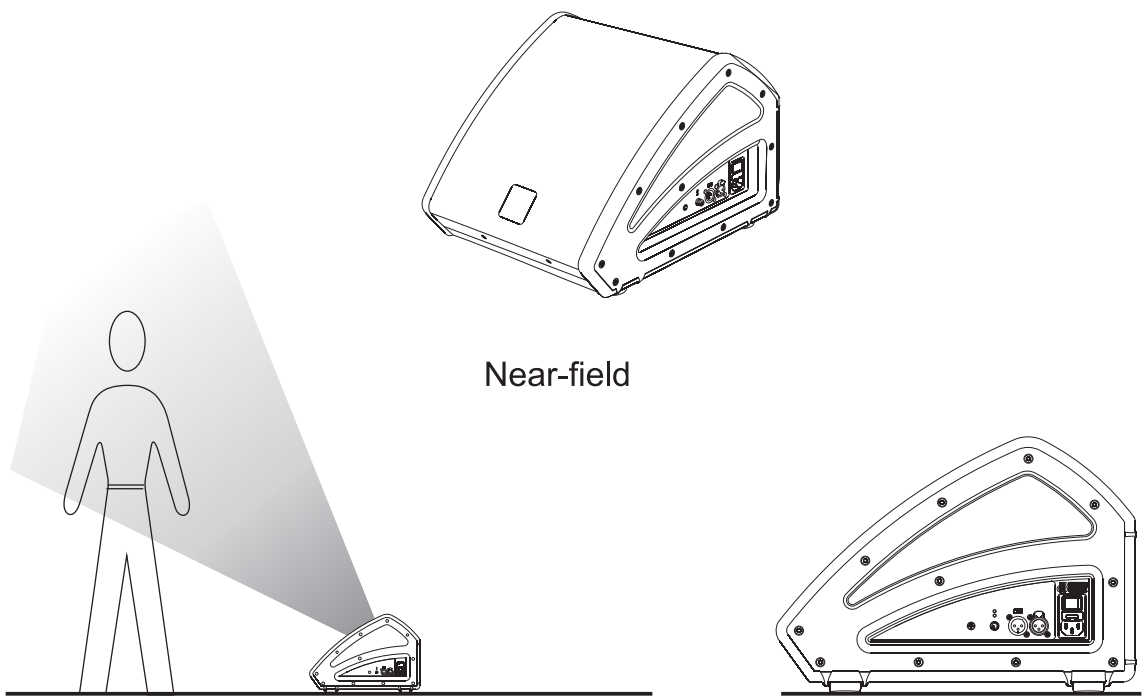


Fig. 1

SUPPORTO PIANTANA STANDARD (D36M)
 STANDARD STAND (D36MM)
 STANDARD-HOCHSTÄNDERFLANSCH (D36MM)
 SUPPORT STANDARD (D36MM)

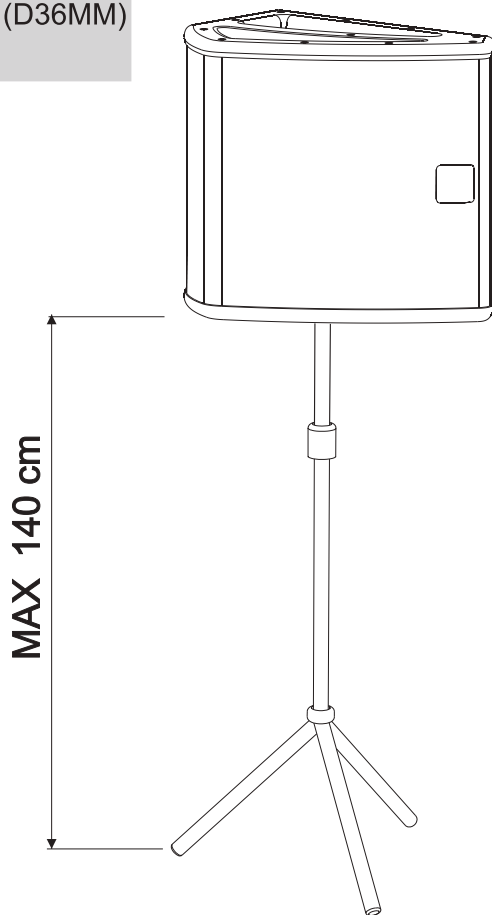
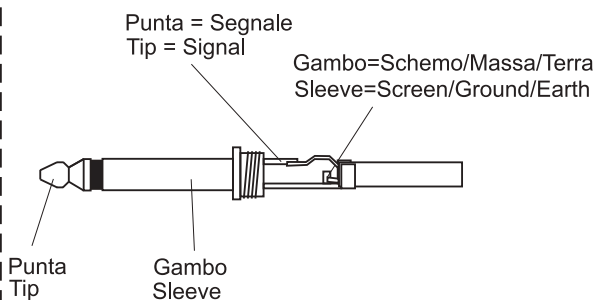


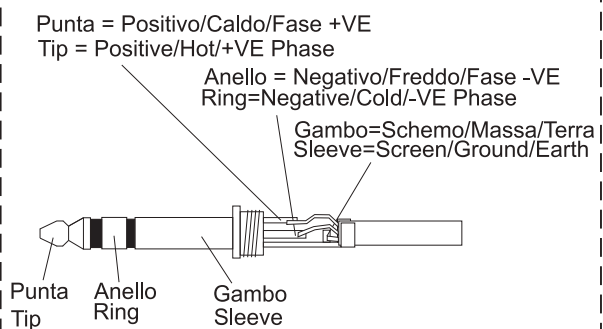
Fig. 2

COLLEGAMENTI - CONNECTIONS- ANSCHLÜSSE- BRANCHEMENTS

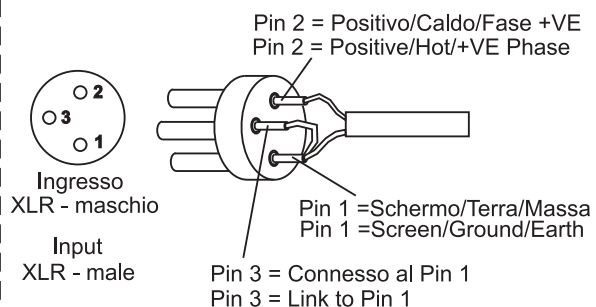
**Funzionamento sbilanciato con
 connettore jack 1/4" (6,3mm)**
Unbalanced use of stereo 1/4" jack plug



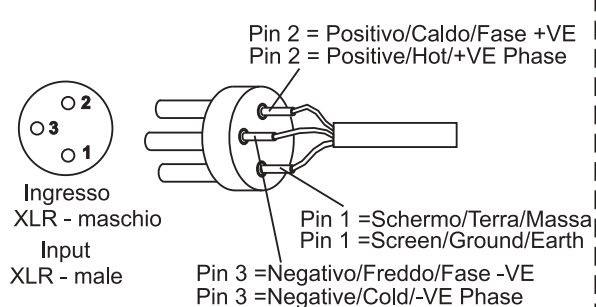
**Funzionamento bilanciato con
 connettore jack 1/4" (6,3mm)**
Balanced use of stereo 1/4" jack plug



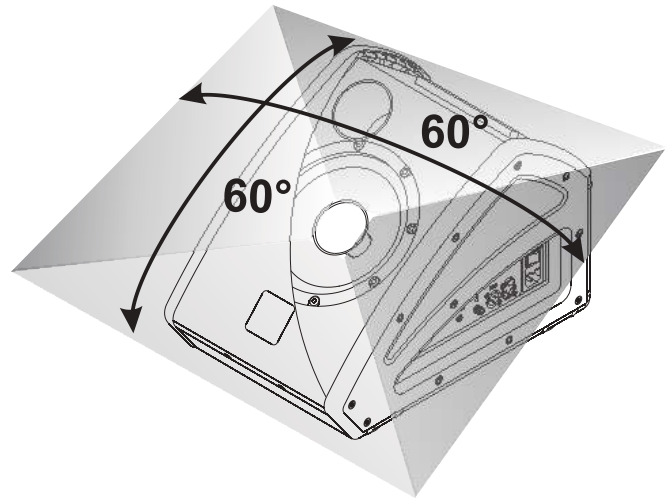
**Funzionamento sbilanciato con
 connettore XLR**
Unbalanced use with XLR connectors



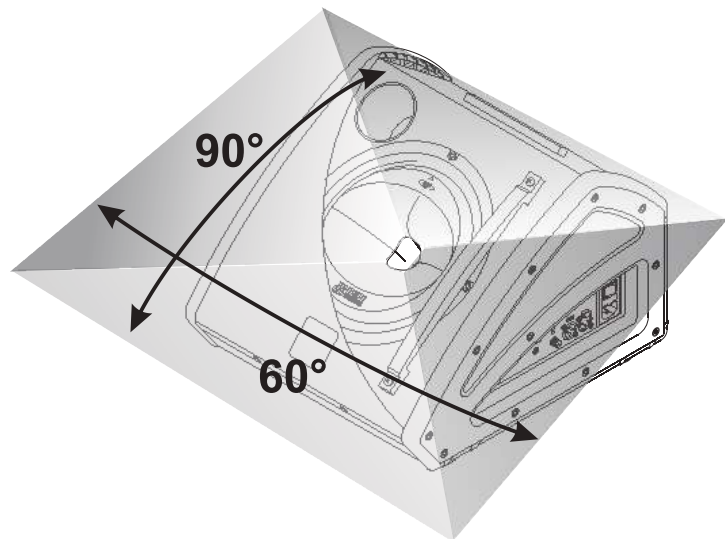
**Funzionamento bilanciato con
 connettore XLR**
Balanced use with XLR connectors



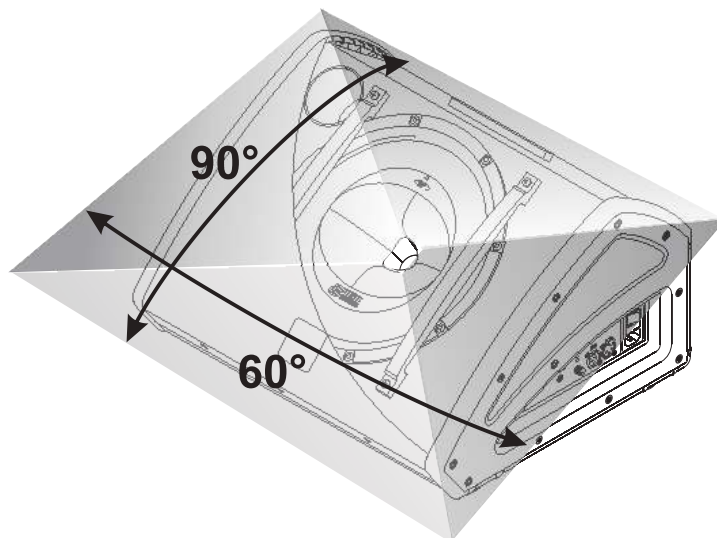
FLEXSYS FM8



FLEXSYS FM10

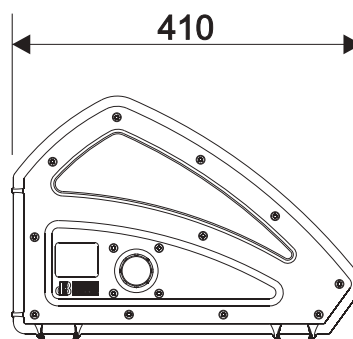
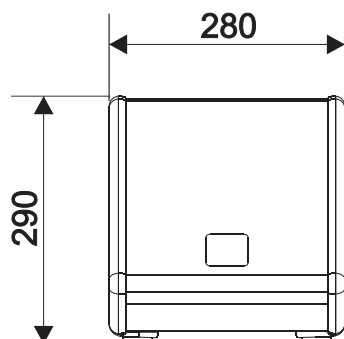
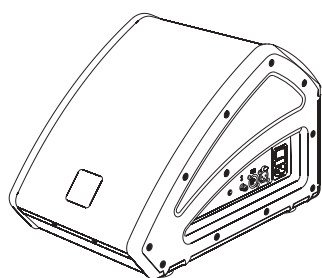


FLEXSYS FM12

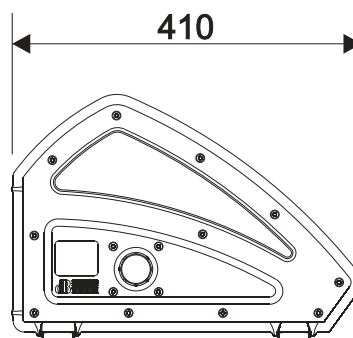
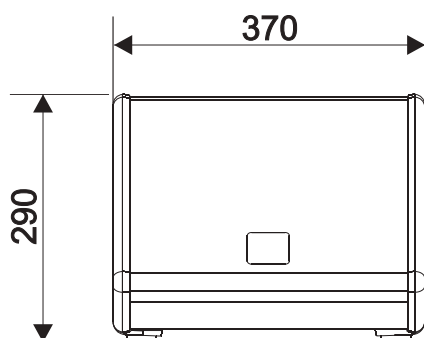
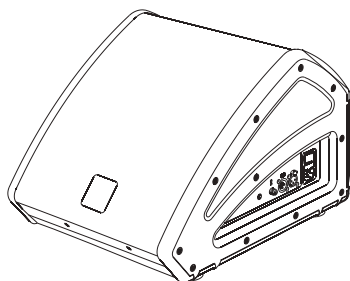


DIMENSIONI / DIMENSIONS
ABMESSUNGEN / DIMENSIONS

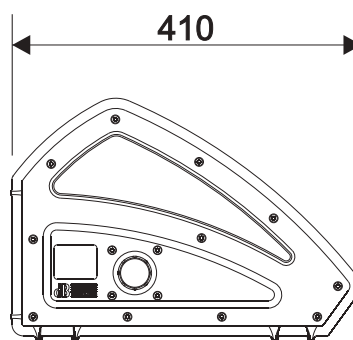
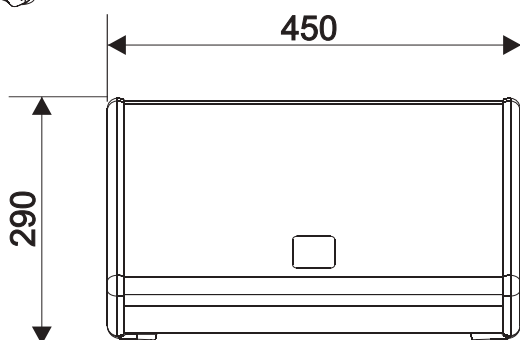
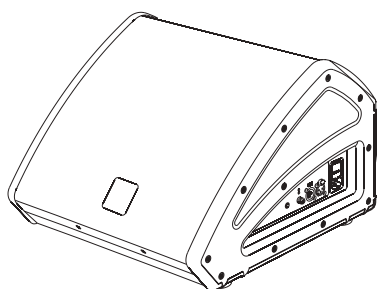
FLEXSYS FM8



FLEXSYS FM10



FLEXSYS FM12





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