FBT elettronica SpA -Via Paolo Soprani 1 - Zona Ind.le Squartabue - 62019 RECANATI - ITALYTel. 071 750591 - Fax. 071 7505920 - email: info@fbt.it - www.fbt.it

StageMaxX 12Ma is a bi-amplified speaker designed to be used as a stage monitor but also suitable for use in fixed installations thanks to the available accessories.
The extremely heavy-duty and resonance free polypropylene cabinet is born from the enormous experience of FBT in gas injected mold engineering it acoustically behaves like a wooden cabinet allowing the perfect integration of all the components for an uncompromising quality in a compact, elegant, unobtrusive on stage, extremely comfortable and easy to carry product.

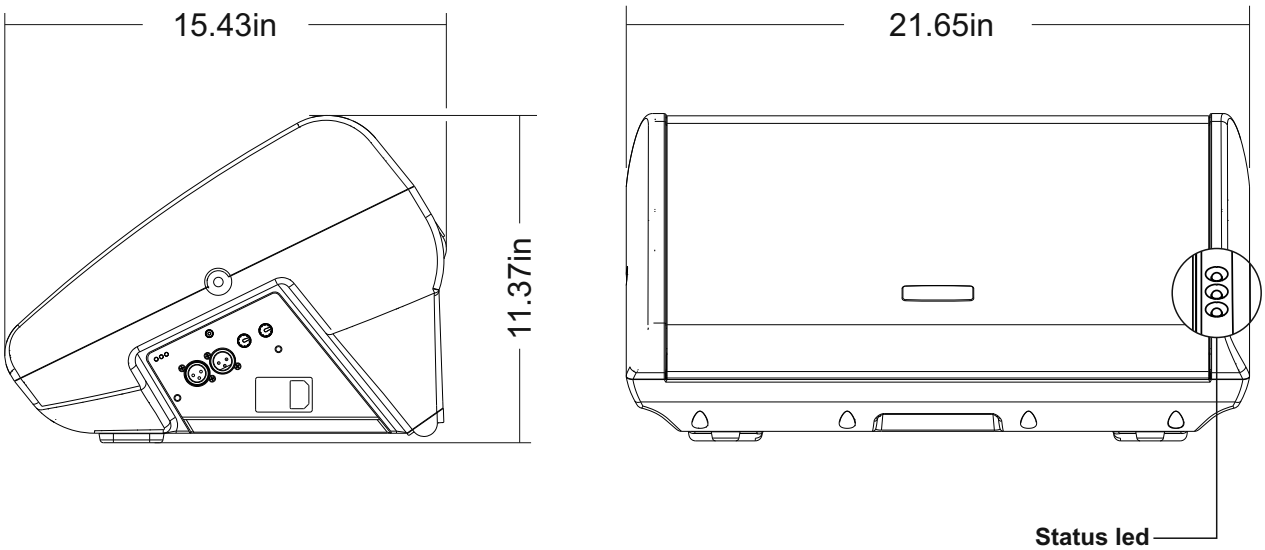
StageMaxX 12Ma is the right combination of all the quality features to be a perfect stage monitor.

GENERAL FEATURES

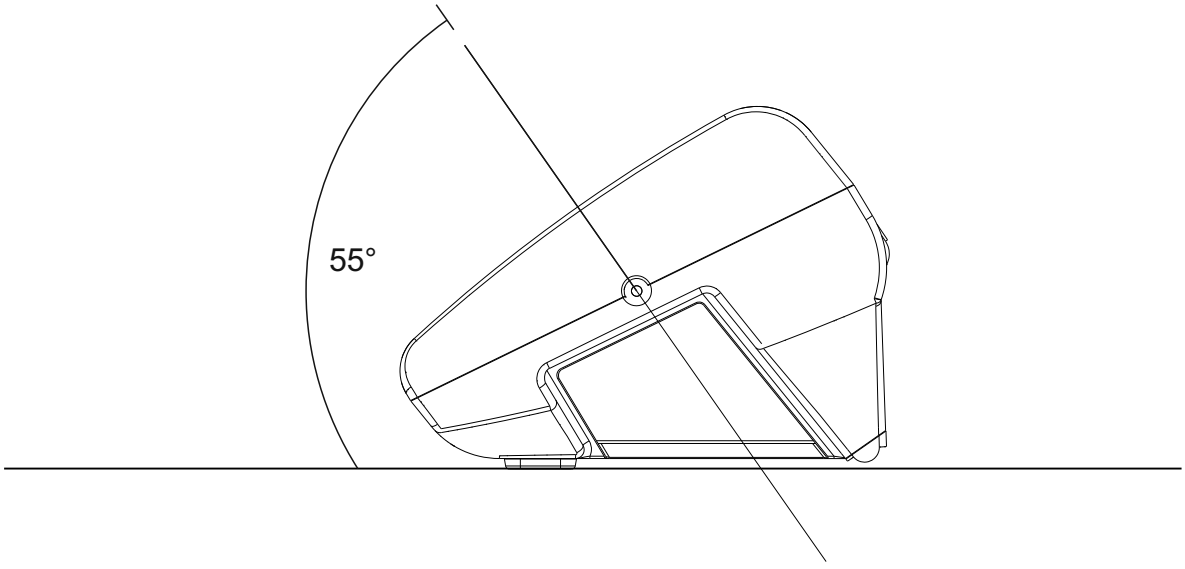
- 2-way, bi-amplified, bass reflex design cabinet.
- Coaxial custom FBT 12" B&C speaker with 2.5" voice coil.
- B&C 1" exit throat compression driver and 1.7" voice coil.
- High dynamic Class D amplifiers 400W + 100W RMS to provide a pleasant sound even at loud volume.
- High efficiency switch mode power supply.
- Digital Signal Processor with 4 factory equalization presets.
- Control panel with XLR/Jack input and XLR link out, Volume, 4 preset, HP filter.
- 3 frontal status led indicators.
- 90° directivity horn.
- Proprietary filtered algorithms, dynamic equalization at low frequencies, advanced energy control allows an high SPL while granting reliable and distortion free audio reproduction with high headroom.
- Sturdy gas-injected polypropylene molded enclosures engineered to avoid undesired resonance.
- High SPL in a compact size monitor.
- 35° or 55° tilted front panel for an optimal listening distance for single or multiple users.
- Three ergonomic integrated carrying handles, two M10 rigging points and wall mounting bracket.
- Teflon replaceable feet allow an easy use on stage.

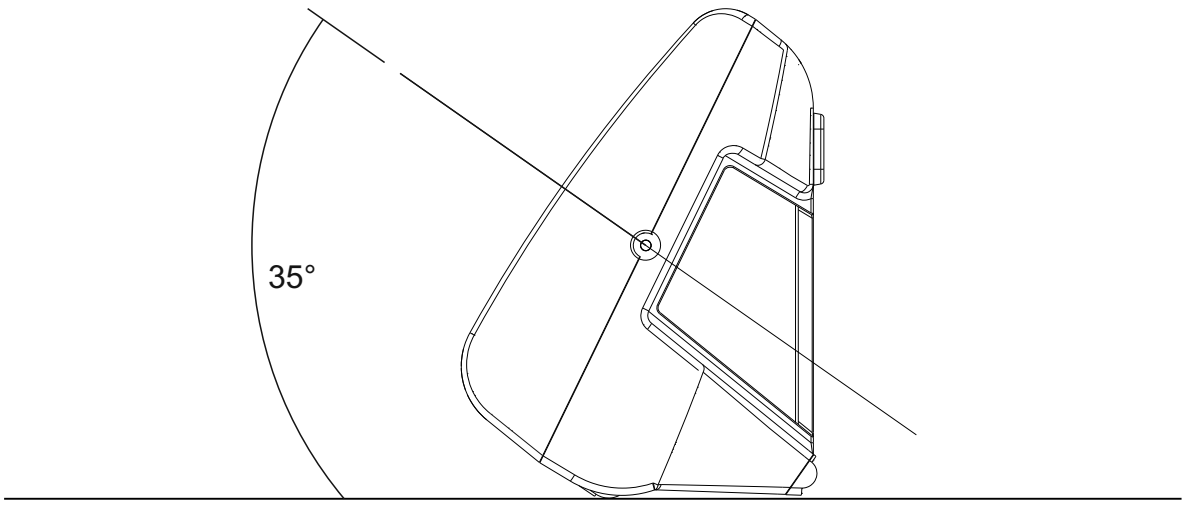
- The coaxial configuration allows perfect alignment of the acoustic centers of the transducers, guaranteeing symmetry of dispersion and improving focus of the stereo image in Left-Right configuration.
- Bi-amplification design with high dynamic Class D amplifiers delivering 400W + 100W RMS through a switch mode power supply. Digital Signal Processor with 4 factory equalization presets provides simple and efficient EQ adjustment to optimize the acoustical response for different applications. The FOH preset allows the use in suspended installation as well as «drum fill» applications.
- Two lateral M10 rigging points and wall mounting bracket for different applications (optional accessories).
- 3 frontal status led indicators to control ON/OFF limiter and protection state.
- Three ergonomic integrated carrying handles, one frontally placed to easily drag and move the monitor on stage and the replaceable teflon feet ensure sliding on stage with minimal wear.
- The cabinet has 35° or 55° tilted front panel for an optimal listening distance for single user (35°) or for more users (55°).

DIMENSIONS



The shape of the cabinet allows for two different front panel angles of 35° and 55° with respect to the base.





CONTROLS AND FUNCTIONS

ON
Indicates that the system in on.

PK
When this led lights up it indicates that the signal is reaching saturation. Adjust signal level until the led turns off and stays off.

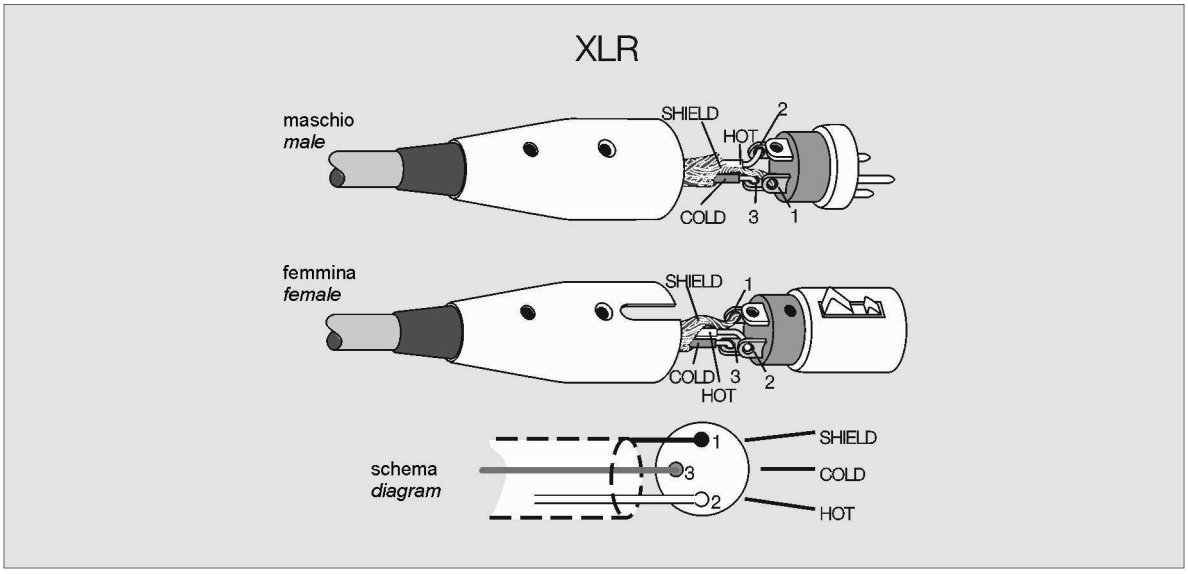
PRT / LMT
If this led lights up, there is a system malfunction due to an internal amplifier failure or to the intervention of current limiting circuits against thermal overload. The occasional led lighting up during highest signal peaks does not imply any troubles in system proper operation; if the led stays on, lower the signal; if the led stays on even without any signal, the system is in safe mode; then, switch the system off, wait approximately for 1 minute and switch it on again.

HP FILTER
This switch activates the low-cut filter, which lets only the frequencies above the cut-off frequency pass at the output.

IN - LINK
Balanced input/output XLR sockets; «IN» allows for the connection of a pre-amplified signal, such as, for instance, the signal coming from mixer output. «LINK» allows for the connection of multiple speakers to the same signal.

LEVEL
It adjusts signal general level.

PRESET
It is used to select 4 presets, each one corresponding to a different equalization according to the personal preferences and to the acoustics of the environment; the existence of presets controlled by the DSP allows to change speaker response much more accurately compared to the tone controls; moreover, the presets are already designed and optimized in anechoic chamber in order to provide the speaker precisely with the desired characteristics:
ORIGINAL: Default preset for using the speaker as a “stage monitor” in floor installations. The half-space sound emission, and the consequent increased load on low-frequencies, is balanced aiming at a neutral response with high sound presence.
HI-CUT / DRUM FILL: Considering the high volume levels and the typical near field position of the monitor, some mid-high frequencies may result unpleasant, making sound listening more difficult and distracting artists from their performance. This preset reduces these frequencies, guaranteeing a natural and pleasant sound, even at high SPL. It has been also designed for being used as a drum fill for drummers, with the monitor placed on the subwoofer.
LO-CUT / DOUBLE: On the stage there are often excess low frequencies returning from the master system, which may make monitor sound less intelligible. This preset reduces low frequencies, making monitor sound clearer and increasing its presence. It is also useful when two monitors are used in a stereo configuration (right and left), for instance for the singer, and allows to obtain a more balanced response for low frequencies.
FOH: Use this preset in case of pole or wall/ceiling installation of the monitor by means of the optional accessory, as well as, more in general, for all front of house applications.



The 3-pole XLR connectors are almost always used for conducting mono balanced signals; the three poles correspond respectively to ground (1), the positive signal (2) and the negative signal (3).

INSTALLATION

The STAGEMAXX speaker is suitable for floor, wall installation by special wall bracket, on stativ.
STAGEMAXX sound speaker must be installed using the flying accessories described in this manual and following the special assembly instructions by qualified staff only, strictly complying with the current regulations and safety standards in force in the country of installation.
FBT flying accessories are manufactured for their exclusive use with STAGEMAXX systems and have not been designed for being used with any other speaker or device.
Any possible elements of the ceiling, floor or further supports where STAGEMAXX systems are to be installed shall be able to safety bear the load. The flying accessories in use are to be coupled and secured safety to both the sound speaker and the ceiling (or the other support).
When components are fitted to ceilings, floors or beams, always make sure that all couplers and fixing elements are properly sized and have an adequate load capacity.
Besides the main suspension system, all flying speakers in theatres, indoor stadiums or in several other work and/or leisure facilities shall be provided with an additional independent safety system with the adequate load capacity. Only steel cables and chains with certified load capacity can be used as an additional safety device.

ATTENTION

- Hang STAGEMAXX speakers using only original accessories.
- When choosing the place of installation, the suspension cable and the mounting supports make sure they are able to bear speaker and flying accessories weight with the proper safety factor.
- As for fixed installations, always schedule and carry out special inspections on a regular basis in order to check all the parts that have to guarantee system safety over time.
- Do not hang the system by the handles: handles have been designed for speaker transport and are not suitable for its suspension.
- Never lean on/hang from the flying speaker.

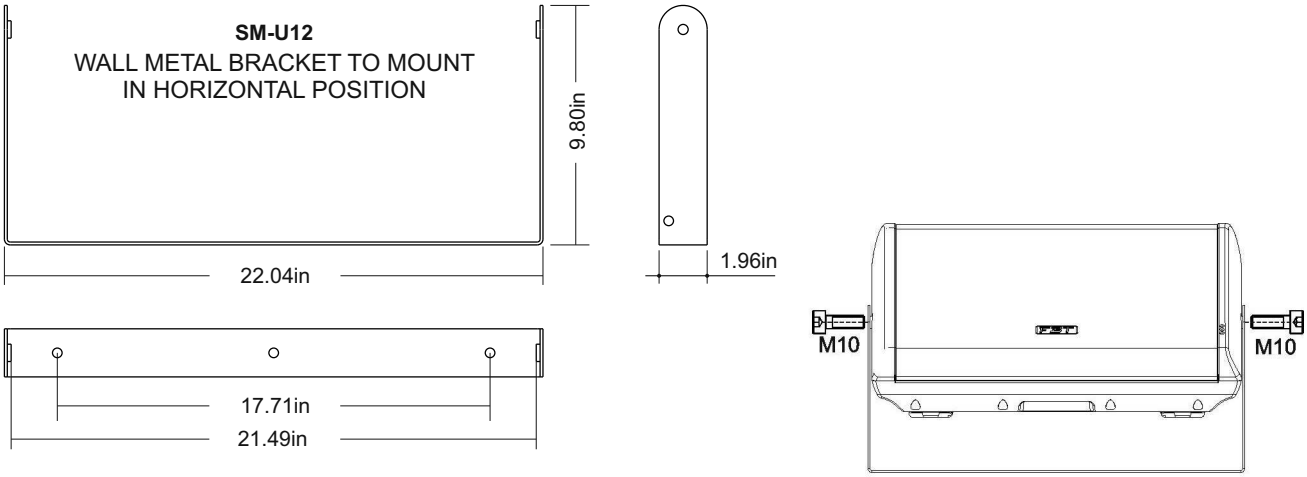
FBT elettronica SpA accepts no responsibilities for any possible damages or injuries due to the use of supports or structures not strong enough or due to wrong installation.

INSTALLATION

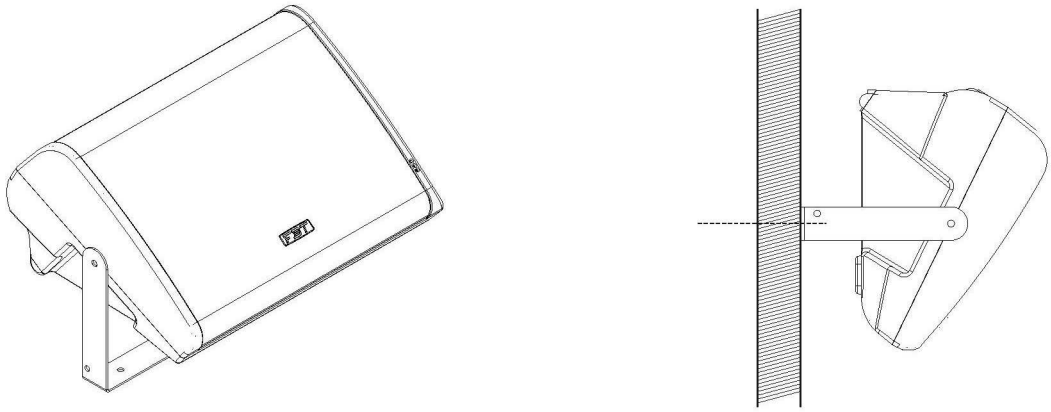
ACCESSORIES

- Carefully choose speakers place of installation and make sure that the structure can bear box weight.
- Secure the bracket to the wall by using screws in all its fixing holes.
- Place the speaker between bracket arms and secure it through two M10 threaded inserts.

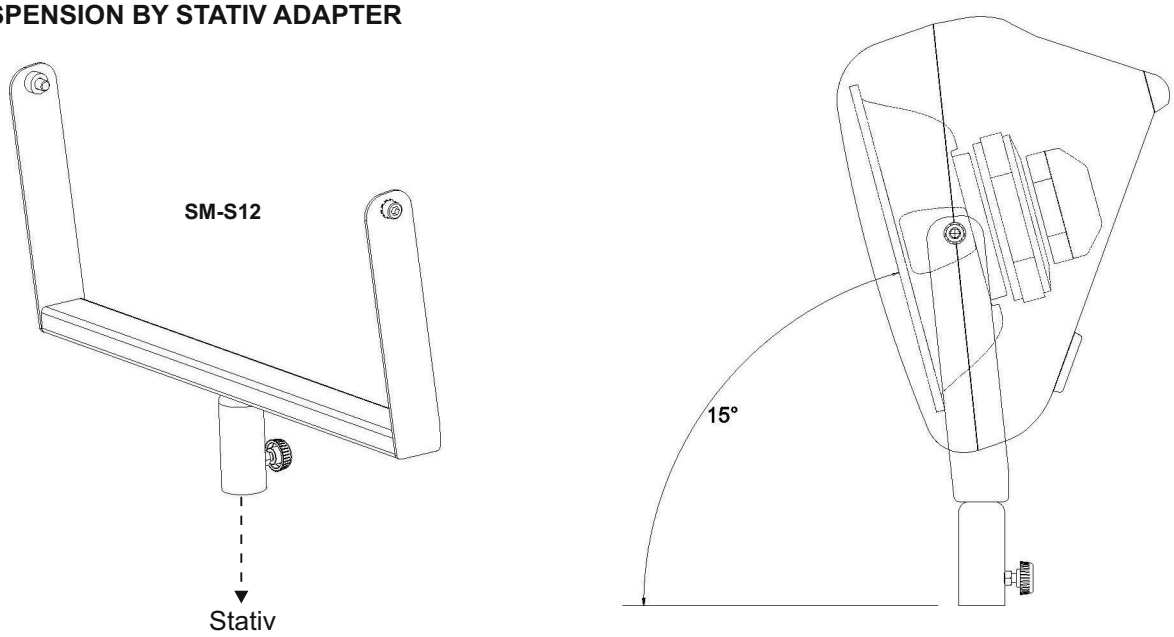
A**TTENTION**
The STAGEMAXX speaker use only with FBT mount for wall installation.
USE WITH OTHER MOUNTS IS CAPABLE OF RESULTING IN INSTABILITY CAUSING POSSIBLE INJURY.



SUSPENSION BY WALL BRACKET

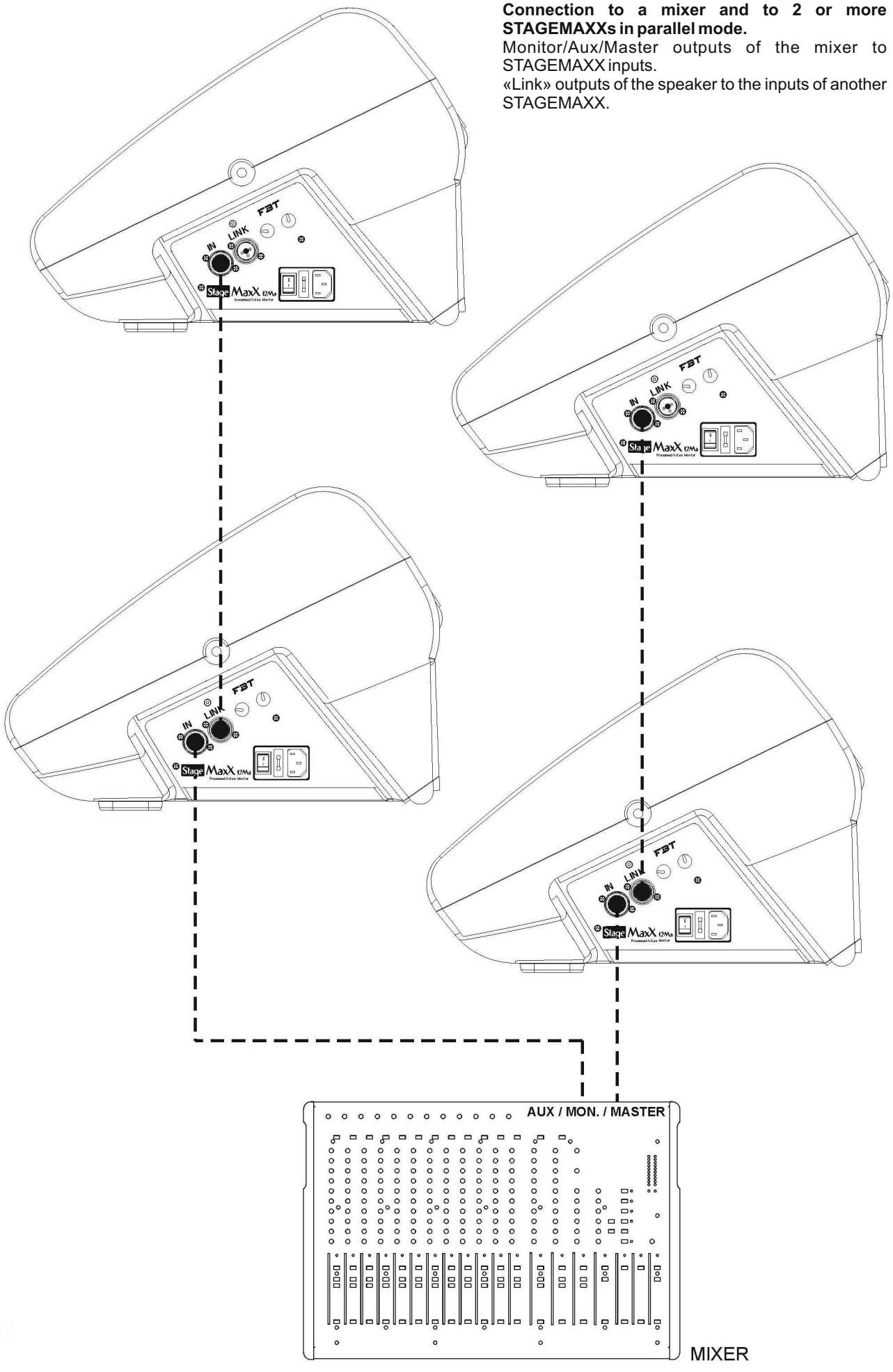


SUSPENSION BY STATIV ADAPTER



CONNECTION EXAMPLES

Connection to a mixer and to 2 or more STAGEMAXXs in parallel mode.
Monitor/Aux/Master outputs of the mixer to STAGEMAXX inputs.
«Link» outputs of the speaker to the inputs of another STAGEMAXX.



TECHNICAL SPECIFICATIONS

Configuration	way	2
Built-in Amplifier cont. RMS LF/HF	W	350 / 80
Built-in Amplifier max. RMS LF/HF	W	400 / 100
Built-in Amplifier max. peak LF/HF	W	800 / 200
Frequency Response	-6dB	60Hz - 20kHz
Low Frequency Woofer	inch	12 - 2.5 coil
High Frequency Driver	inch	1 - 1.7 coil
Max. SPL cont/peak	dB	124 - 130
Dispersion	H x V	90°
Input Impedance	kOhm	22
Crossover Frequency	kHz	1.8
AC Power Requirement	VA	450
Input Connectors		XLR with loop
Power Cord	ft	16.4
Net Dimensions (WxHxD)	inch	21.65 x 11.37 x 15.43
Net Weight	lb	29.98
Transport Dimensions (WxHxD)	inch	26.37 x 16.92 x 19.68
Transport Weight	lb	36.15

GLOSSARY

SWITCH MODE POWER SUPPLY
A unit that, before making the power available for internal use in the amplifier, converts the AC power supply into a much higher frequency thanks to a switch mode circuit. The advantages of a switch mode power supply are its lower weight and reduced electromagnetic emissions.
AMPLIFIER CLASS
Power amplifiers are mainly classified according to the type of output stage. Such classification is based on how long output devices remain active during each cycle. The most common classes of professional sound amplifiers are: A, B, AB, D, G.
CLIPPING
Digital distortion occurring when the amplitude of an input signal to a sampling device exceeds the dynamic range that the same device can manage.
COAXIAL
An element embedding another element on the same axis; for instance, a loudspeaker for low frequencies with another loudspeaker for high frequencies fitted into or over its centre.
CROSSOVER, network
High- and low-pass filters used for speakers do not cut-off undesired frequencies; the roll-off (filter attenuation) occurs over a number of octaves. Common filter slope for speakers are 1st through 4th order, corresponding to 6dB/octave to 24 dB/octave.
DYNAMICS, dynamic range
The dynamic range of a sound is the ratio between the strong and powerful part of that sound, and its soft and light part; it is measured in dB.
DISPERSION
the dispersion of a sound source is a characteristic that describes the directional feature of the relevant sound emission. The two reference planes for the dispersion angle measurement of a sound source are the horizontal and the vertical planes.
HIGH PASS FILTER
It is a filter letting the frequencies above a certain threshold pass, and cutting the frequencies below such threshold. It is also called low-cut filter.
PINK NOISE
The noise is said to be pink, as opposed to the white noise. It is a non periodic noise, which includes frequencies from the whole acoustic spectrum. However, unlike the white noise, it has higher amplitude at low frequencies and lower amplitude at high frequencies, so to adjust to the human ear sensitivity, that is less sensitive to lower frequencies.
CONTINUOUS POWER
The maximum power an amplifier may supply continuously within a certain distortion range.
PEAK POWER
The maximum power the amplifier may supply for short periods of time without implying its saturation.
FREQUENCY RESPONSE
The frequency response is the actual frequency range a device can play.
RMS
«Root Means Square»; it is a value expressing the significant mean of the amplitude values of a sound wave.
SPL
Perceived sound volume or pressure, measured in decibels; the SPL is a function of signal amplitude.