MACH Installation Series

In-Fill Speaker

user manual

M42i
M62i
M68i
MIW62
MIW62-100
M208i

Mach

INTRODUCTION

DESIGN APPLICATIONS

The in-fill speakers for the Mach installation series have been designed for commercial venues such as cafés, clubs, department stores, conference rooms, and hotels, that require high-fidelity in-fill sound.

The goal of the in-fill speaker design is to provide true hi-fi performance with high speech intelligibility in a compact package. As background noise in these venues is typically located in the mid-frequency area, the in-fill speakers are acoustically optimized for clarity and openness in the mid-range.

The M42i and M62i are top-boxes that can be supported by the M208i sub-woofer or the bass output of the venue's main PA system.

The M208i is a stereo subwoofer with an integrated high-pass filter that enables the sub and two top-boxes to be powered by one amplifier. It has been made as compact as possible using the bandpass principle, which maximizes the output-to-size ratio.

The M68i is a full-range speaker with usable bass-output down to 60 Hz; it can be used as a stand-alone box without subwoofer support.

All Mach in-fill top-boxes have wide, even dispersion that ensures good coverage in low-ceiling applications.

FEATURES

- Thermal protection circuit on all tweeters
- Magnetic shielding on all woofers
- 100° x 100° dispersion
- UV-stable cabinet and drive units
- Custom brackets
- Subwoofer with integrated 160 Hz crossover
- High quality European drive units

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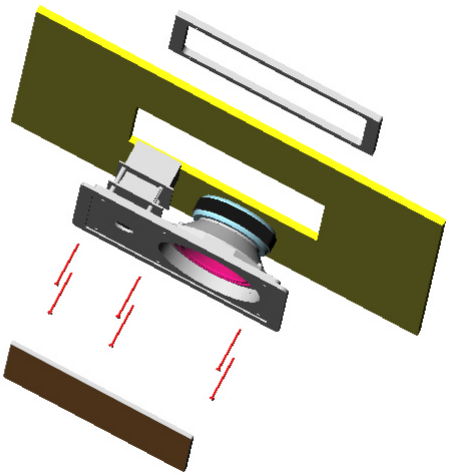
INSTALLATION

HANGING BRACKETS

Custom brackets with horizontal and vertical tilt are available for all top-boxes.

- Black hanging bracket for M42i/M62i .....P/N 93943001
- White hanging bracket for M42i/M62i.....P/N 93943002
- Special multi bracket for M68i .....P/N 93943006

The MIW62 comes with a mounting bracket for ceilings as illustrated below.



CONNECTIONS

Always use high quality speaker cable for the best sound quality and system performance.

All in-fill models are easily connected using push terminals. For correct polarity, connect the red (+) terminal on the amplifier to the red terminal on the speaker. Likewise, connect the black (-) terminal on the amplifier to the black terminal on the speaker. *If one speaker is connected with reverse polarity, the result is a strong decrease in bass output and lack of focus in the mid/high frequencies.*

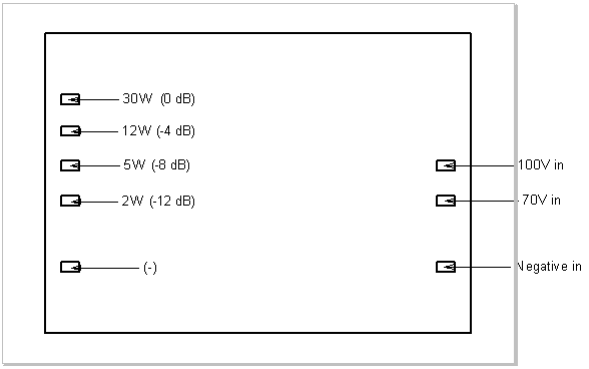
If supporting the in-fill top-boxes with the M208i subwoofer, connect the high-pass output on the M208i to the top-box input. *Connect only one pair of top-boxes to the subwoofer output.*

Important! Do not connect the subwoofer high-pass output to the amplifier output: this will cause damage to the amplifier.

MIW62 INSTALLATION

As a rule of thumb, correct coverage is obtained by spacing MIW62's at a distance similar to the height of the room.

With the 100V module included, the output of the speaker can be controlled individually by connecting it to the - (minus) terminal and to one of the output options shown below:



The cut-out dimensions for MIW62 are 278 x 190 mm (11" x 7½").

The minimum depth required is 80 mm (3.15") without the 100V module and 100 mm (4") with 100V module.

OPERATION

TWEETER PROTECTION

The tweeters are protected by a thermal protection circuit that increases impedance when the current exceeds a safe level. The increased impedance reduces current to the tweeter, thus protecting it against damage. The audible result is a decrease in high-frequency output. If this happens, do not increase the high-frequency level on the EQ or tone control on the mixer: the tweeter has reached its maximum power handling capacity. If higher output is required, more or larger speakers are needed.

When volume is decreased and current returns to a safe level, the protection circuit automatically restores full signal to the tweeter and the audio output returns to normal.

TECHNICAL DATA

	M42i	M62i	M68i	M208i	MIW62
Woofer	4"	6 1/2"	8"	2x8"	6 1/2"
Tweeter	1"	1"	3/4"	none	1"
Power handling (IEC)	40 W	55 W	90 W	2x100 W	50 W
Power handling (Program)	100 W	160 W	250 W	2x200 W	140 W
Recommended amplifier	50 W	80 W	125 W	2x100 W	70 W
Sensitivity (1w/1m)	87 dB	88 dB	92 dB	90 dB	88 dB
Maximum SPL	104 dB	107 dB	111 dB	110 dB	107 dB
Frequency response	170-20 kHz	80-20 kHz	59-20 kHz	45-160 Hz	80-20 kHz
Nominal Impedance	8 ohm	8 ohm	8 ohm	2x8 ohm	8 ohm
Dimensions (cm)	21x14x12	30x20x16	39x25x22	54x29x39	31x22x9
Dimensions (in.)	8x6x5	12x8x6	15x10x9	21x12x15	12x9x3.5
Weight	2 kg	4 kg	6 kg	16 kg	2.2 kg

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