

PANARAY® MA12 & MA12EX Modular Line Array Loudspeaker Family

NEW Panaray® MA12EX Modular Line Array Loudspeaker







The newest addition to the Panaray MA12 loudspeaker family, the Panaray MA12EX modular line array loudspeaker is designed to deliver high speech intelligibility and full-range music from 75 Hz to 13 kHz (-3 dB), without additional bass augmentation, in both indoor and outdoor acoustically demanding spaces. Twelve 2.25" (57mm) high-excursion, weather-resistant drivers mounted in an Articulated Array® loudspeaker design¹ deliver 160° of horizontal dispersion and narrow vertical pattern control. The Panaray MA12EX loudspeaker delivers full-range performance at 150 watts, and speech-only performance at 300 watts. The loudspeaker can be mounted in single or multiple loudspeaker configurations. It is well-suited for indoor and outdoor applications such as houses of worship, multipurpose spaces, recreation, retail, restaurants, auditoriums, transportation hubs, gymnasiums, atriums and malls.

Panaray® MA12 Modular Line Array Loudspeaker

The Panaray MA12 modular line array loudspeaker is designed for acoustically demanding indoor spaces where speech intelligibility is critical and speech reproduction is the main requirement. To deliver full-range music performance, bass augmentation is required. Twelve 2.25" (57mm) mid/high-frequency drivers mounted in a vertical line array deliver 145° of horizontal dispersion and narrow vertical pattern control. The MA12 loudspeaker delivers 300 watts of power handling and can be mounted in single or multiple loudspeaker configurations. This loudspeaker is well-suited for indoor applications such as houses of worship, auditoriums, transportation hubs, atriums, malls, gymnasiums and multipurpose spaces.



	MA12	MA12EX
PRODUCT FEATURES		
Indoor Applications	•	•
Outdoor Applications		•
Articulated Array® Loudspeaker Design ¹		•
Speech-Only Applications	•	•
Speech and Full-Range Music Applications	(with added bass augmentation)	•
SYSTEM PERFORMANCE (Single Module)		
Frequency Response (-3 dB) ²	155 Hz – 12 kHz	75 Hz – 13 kHz
Frequency Range (-10 dB) ²	100 Hz – 16 kHz	58 Hz – 16 kHz
Calculated Maximum SPL @ 1m ³	113 dB	109 dB
Input Power Rating (continuous/peak) ⁴	300W/1200W	150W/600W ⁷
Axial Sensitivity (SPL/1W @ 1m) ⁵	88 dB	87 dB
Nominal Horizontal Coverage (-6 dB)	145°	160°
Nominal Vertical Coverage (-6 dB) ⁶	20°	20°
Nominal Impedance (transformer bypass)	8Ω	8Ω
Minimum Impedance	6.2Ω	7.1Ω
Crossover Frequency	N/A	N/A
Recommended High-Pass Filter	125 Hz	65 Hz
TRANSDUCERS		
Driver Complement	Twelve 2.25" (57mm) mid/high-frequency drivers	Twelve 2.25" (57mm) high-excursion, weather-resistant drivers
PHYSICAL		
Enclosure Material	Extruded-aluminum sidewalls with steel top and bottom endcaps, all powder-coated	Extruded-aluminum sidewalls with zinc-plated steel top and bottom endcaps, all powder-coated
Grille	Powder-coated steel	Powder-coated aluminum
Connectors	Two parallel wired Neutrik Speakon® NL4 connectors One two-conductor barrier strip	Two parallel wired Neutrik Speakon® NL4 connectors Two two-conductor barrier strips
Suspension Attachment	4 x M6 threaded inserts	6 x M6 threaded inserts
Dimensions (H x W x D)	38.8" x 4.2" x 5.1" (986mm x 107mm x 130mm)	38.8" x 4.1" x 5.5" (986mm x 104mm x 140mm)
Net Weight	18.7lbs	20.8lbs
Shipping Weight	20.8lbs	22.9lbs
Color	Available in black or white, paintable	Available in black or white, paintable

		MA12	MA12EX
MA12 AND MA12EX LOUDSPEAKER ACCESSORIES			
	CB-MA12 Coupling Bracket Coupling bracket for stacking multiple MA12 loudspeakers.	▪	
	CB-MA12EX Coupling Bracket Coupling bracket for stacking multiple MA12EX loudspeakers.		▪
	CVT-MA12 Transformer 70V/100V Transformer for use with MA12 loudspeakers. Bracket included for coupling transformer to loudspeaker.	▪	
	CVT-MA12EX Transformer 70V/100V Transformer for use with MA12EX loudspeakers. Bracket included for coupling transformer to loudspeaker.		▪
	WB-MA12/MA12EX Pitch-Only Bracket Bracket offers pitch adjustment for MA12 and MA12EX loudspeakers.	▪	▪
	WMB-MA12/MA12EX Bi-Pivot Bracket Bracket offers pitch and yaw adjustment for MA12 and MA12EX loudspeakers.	▪	▪
	WMB2-MA12/MA12EX Pitch Lock Upper Bracket Bracket offers 0-10° of pitch adjustment for the single or stacked MA12 and MA12EX loudspeakers. This bracket is used along with the WB-MA12/MA12EX pitch-only or WMB-MA12/MA12EX bi-pivot brackets.	▪	▪

For more information about the Panaray® MA12 and MA12EX Modular Line Array loudspeaker family, please visit:



1) Articulated Array® loudspeaker technology produces wide, uniform sound coverage by angling every other driver within the enclosure to create 160 degrees of horizontal coverage and consistent tonal balance.
 2) Frequency Response and Range: Data is the average response in the typical coverage area with the recommended equalization applied.
 3) Calculated Max SPL: Calculated based on input sensitivity with recommended equalization applied and maximum input power rating exclusive of power compression.
 4) Input Power Rating: Pink noise with a 6 dB crest factor is bandpass limited to the operating range of the loudspeaker and applied for 100 hours.

5) Axial Sensitivity: Full-bandwidth pink noise with recommended equalization amplified to a level of 1 watt and applied to the loudspeaker in an anechoic environment.
 6) Vertical coverage varies by number of modules vertically arrayed and distance from line-source boundary. Use Modeler® software for the best prediction.
 7) 150W for full-range music and speech applications. Speech-only applications (155 Hz to 12 kHz), power handling (continuous) at 300W/1200W.