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MA12 Panaray
Modular Line Array
Loudspeaker



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BOSE

BOSE MA12 Panaray Modular Line Array Loudspeaker



Specifications

- Product: Panaray Modular Line Array Loudspeaker MA12/MA12EX
- Installation Guide Languages: English, Danish, German, Dutch, French, Italian
- Compliance: EU directive requirements, Electromagnetic
- Compatibility Regulations 2016, UK regulations

For Permanent Installation

CE This product conforms to all applicable EU directive requirements. The complete declaration of conformity can be found at the product-specific page:

[BoseProfessional.com](https://www.boseprofessional.com)

**UK
CA** This product conforms to all applicable Electromagnetic Compatibility Regulations 2016 and all other applicable UK regulations. The complete declaration of conformity can be found at the product-specific page: [BoseProfessional.com](https://www.boseprofessional.com)



WARNING: Permanent installations involve the attachment of the loudspeakers to

brackets or other mounting surfaces for long-term or seasonal use. Such mountings, frequently in overhead locations, involve risk of personal injury if either the mounting system or the loudspeaker attachment fails.

Bose Professional offers permanent mounting brackets for the safe use of these loudspeakers in such installations. However, we realize some installations may call for use of other, custom-designed mounting solutions or non-Bose Professional mounting products. While Bose Professional cannot be held responsible for the proper design and use of non-Bose Professional mounting systems, we offer the following guidelines for the permanent installation of any Bose Professional MA12/MA12EX Modular Line Array Loudspeaker:

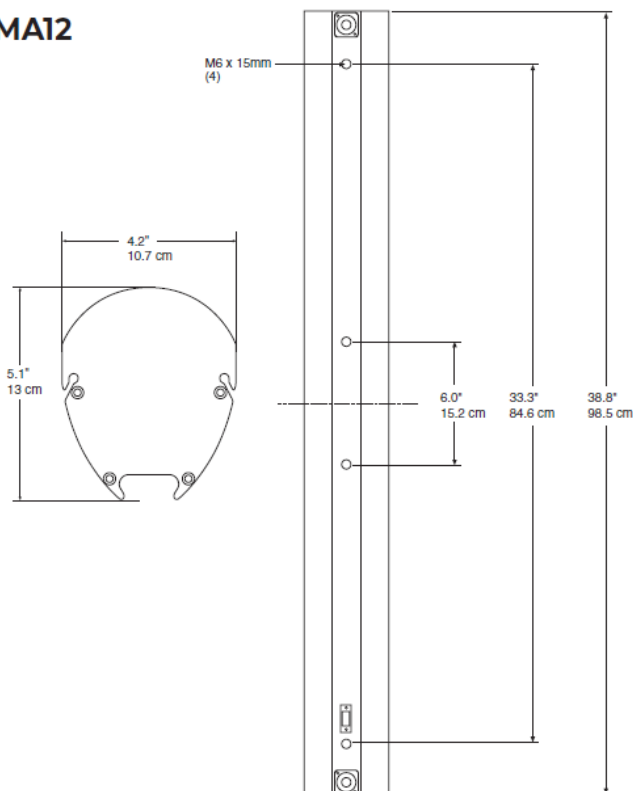
Choose a position and mounting method consistent with local building codes and regulations. Ensure the mounting surface and the method of attaching the loudspeaker to the surface is structurally capable of supporting the weight of the loudspeaker. A 10:1 safety weight ratio is recommended.

- Obtain your mounting system from a reputable manufacturer, and make sure the system is specifically designed for the loudspeaker of choice and your intended use.
- Before using a custom-designed and fabricated mounting system, have a licensed professional engineer review the design and fabrication for structural integrity and safety in the intended application.
- Notice that all threaded attachment points on the rear of each loud-speaker cabinet have a metric M6 x 1 x 15 mm thread with 10 usable threads.
- Use a safety cable, separately attached to the cabinet at a point not in common with the load bearing attachment points of the bracket to the loudspeaker.
- If you are unfamiliar with the proper design, use, and purpose of a safety cable, consult a licensed professional engineer, a rigging professional, or a theatrical lighting trades professional.
- **CAUTION:** Use only graded hardware. Fasteners should be metric Grade 8.8 minimum and should be tightened using torque not to exceed 50 inch-pounds (5.6 Newton-meters). Overtightening the fastener could result in irreparable damage to the cabinet and an unsafe assembly.
- Lockwashers or a thread locking compound intended for hand disassembly (such as Loctite® 242) should be used for a vibration resistant assembly.

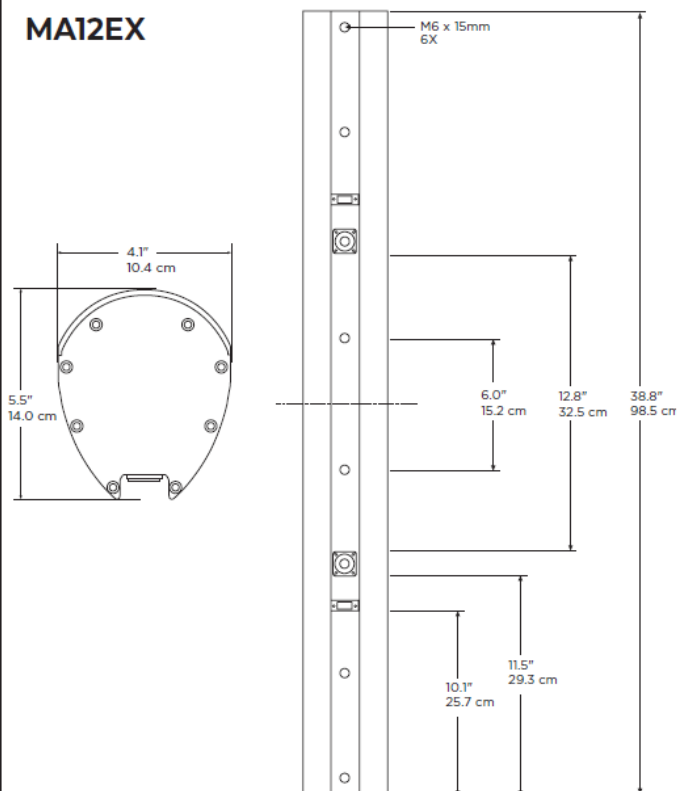
- **CAUTION:** The fastener should be long enough to engage no fewer than 8 and no more than 10 threads of the attachment point. A fastener should protrude by 8 to 10 mm, with 10 mm preferred (5/16 to 3/8 inch, with 3/8 inch preferred) beyond the assembled mounting parts to provide sufficient threaded attachment to the loudspeaker. Using a fastener that is too long may result in irreparable damage to the cabinet and, when overtightened, can create a potentially unsafe assembly. Using a fastener that is too short provides inadequate holding power and may strip the mounting threads, resulting in an unsafe assembly. Confirm that at least 8 full threads are engaged in your assembly.
- **CAUTION:** Do not attempt to alter the threaded attachment points. While SAE 1/4 – 20 UNC fasteners are very similar in appearance to the metric M6, they are not interchangeable. Do not attempt to re-thread the attachment points to accommodate any other thread size or type. Doing this will render the installation unsafe and will permanently damage the loudspeaker. You may substitute 1/4-inch washers and lockwashers for the 6 mm ones.

Dimensions

MA12

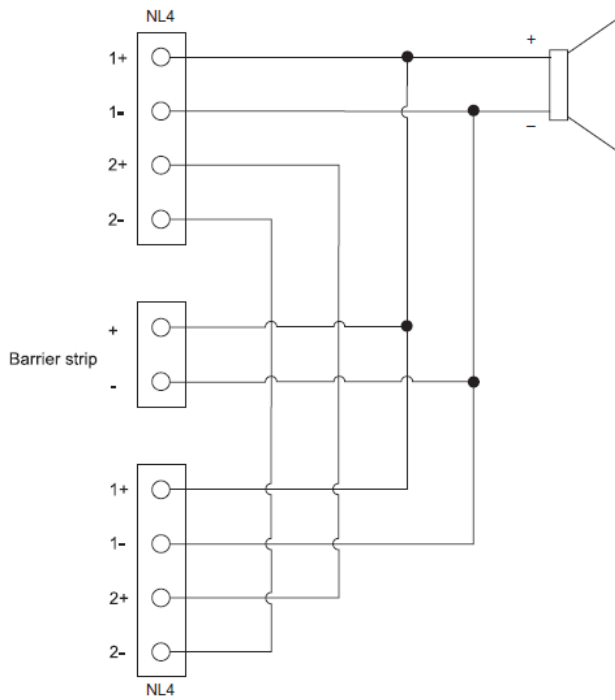


MA12EX

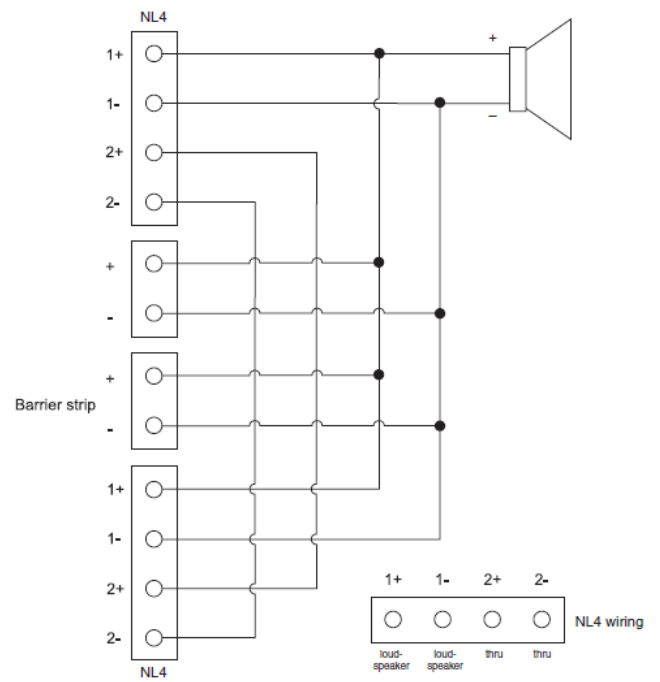


Wiring schematic

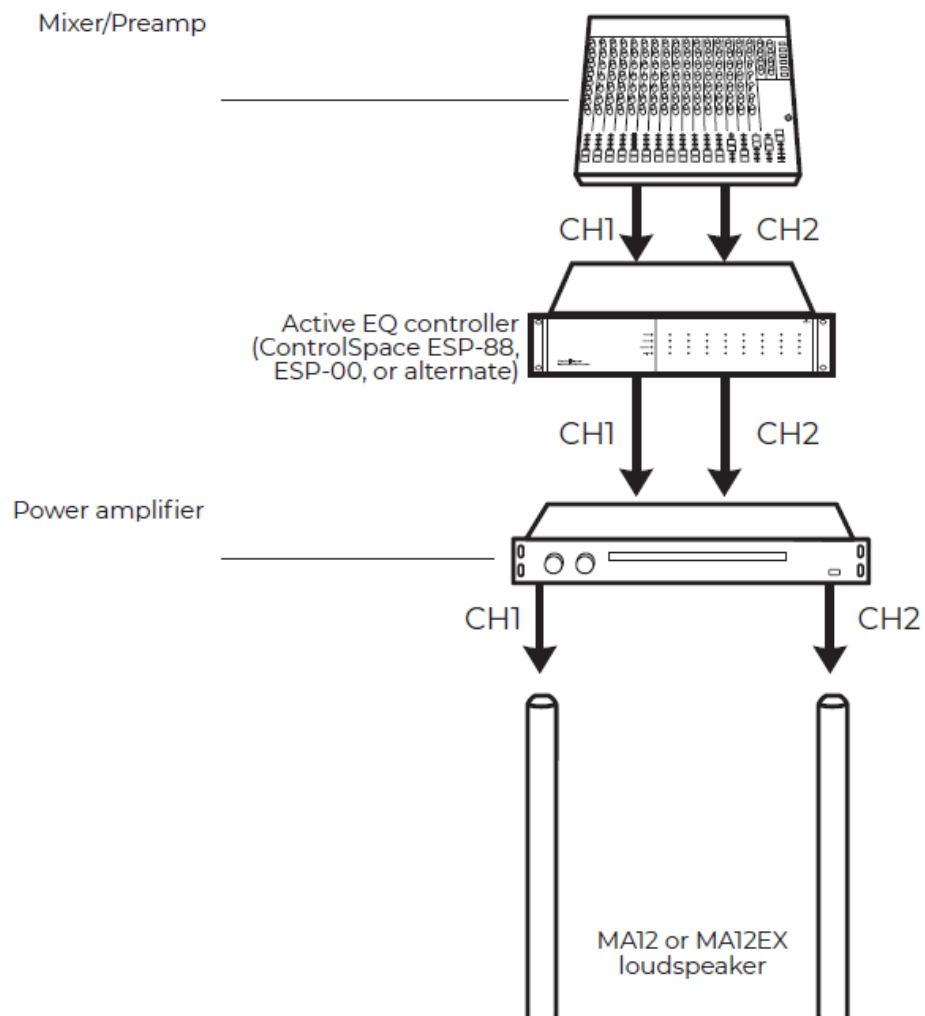
MA12



MA12EX

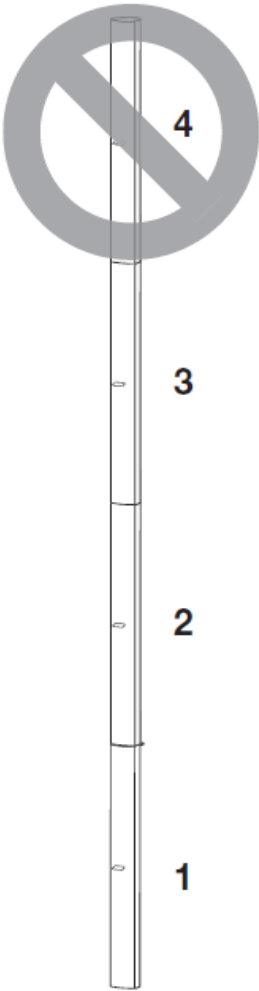


System Setup



Setup

Stacks greater than three units will require custom rigging.



Choices

	MA12	MA12EX
Transformer	CVT-MA12 White/Black	CVT-MA12EX White/Black
Coupling bracket	CB-MA12 White/Black	CB-MA12EX White/Black
Pitch-only Bracket	WB-MA12/MA12EX White/Black	

Bi-pivot Bracket	WMB-MA12/MA12EX White/Black
Pitch Lock Upper Bracket	WMB2-MA12/MA12EX White/Black
ControlSpace Engineered Sound Processor	ESP-88 or ESP-00

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FAQ


- **Can I use other thread sizes for mounting?**

No, do not attempt to alter the threaded attachment points to accommodate other thread sizes as it may damage the loudspeaker and render the installation unsafe.

- **What is the recommended torque for fasteners?**

Fasteners should be tightened using torque not to exceed 50 inch-pounds (5.6 Newton-meters) to prevent irreparable damage to the cabinet.

Documents / Resources

 <p>Panaray MODULAR LINE ARRAY LOUDSPEAKER</p> <p>MA12, MA12EX, MA12 Panaray Modular Line Array Loudspeaker, MA12, Panaray Modular Line Array Loudspeaker, Modular Line Array Loudspeaker, Line Array Loudspeaker, Array Loudspeaker, Loudspeaker</p>	<p>BOSE MA12 Panaray Modular Line Array Loudspeaker [pdf] Installation Guide</p> <p>MA12, MA12EX, MA12 Panaray Modular Line Array Loudspeaker, MA12, Panaray Modular Line Array Loudspeaker, Modular Line Array Loudspeaker, Line Array Loudspeaker, Array Loudspeaker, Loudspeaker</p>
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References

- [User Manual](#)

■ Bose

◆ Array Loudspeaker, Bose, Line Array Loudspeaker, Loudspeaker, MA12, MA12 Panaray Modular Line Array Loudspeaker, MA12EX, Modular Line Array Loudspeaker, Panaray Modular Line Array Loudspeaker

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