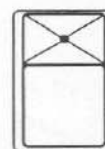




Electro-Voice®

SYSTEM 200™ MODULAR PRO AUDIO

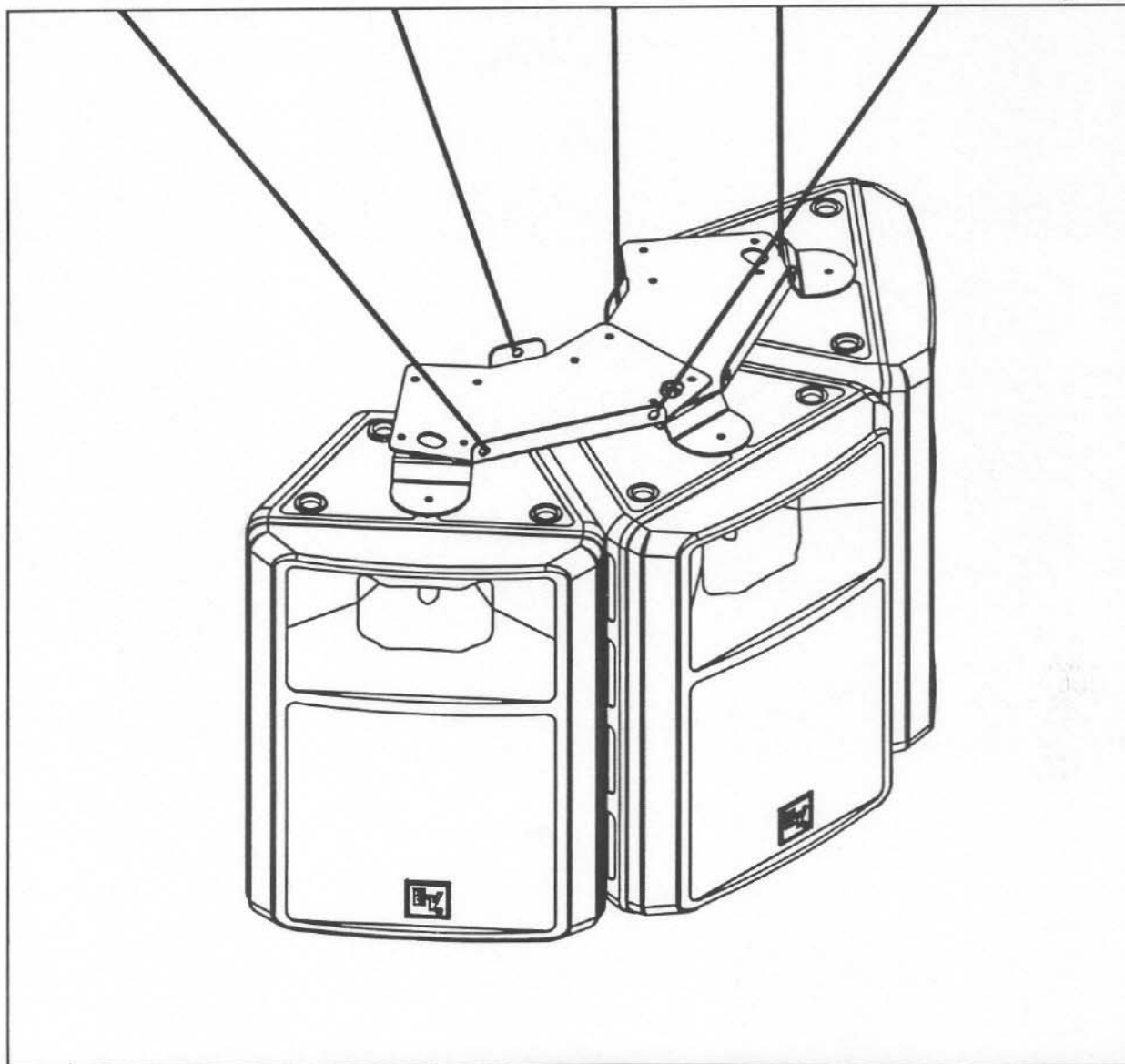
INSTRUCTION MANUAL



S_x200
S_x100



S_b120
S_b120a



SUSPENDING SYSTEM 200™ LOUDSPEAKERS

version 1.0

WARNING: *Suspending any object is potentially dangerous and should only be attempted by individuals who have a thorough knowledge of the techniques and regulations of rigging objects overhead. Electro-Voice strongly recommends that the System 200™ enclosures be suspended taking into account all current national, federal, state and local regulations. It is the responsibility of the installer to ensure the loudspeaker is safely installed and in compliance with all regulations. If the loudspeaker is suspended, Electro-Voice strongly recommends that the system be inspected at least once a year. If any sign of weakness or damage is detected, remedial action should be taken immediately.*

THE Mb KITS

Electro-Voice manufactures three accessories to make the suspension of System 200™ enclosures safe, easy and cost-effective: the Mb100 Eyebolt Attachment Kit, the Mb200 Installation Kit and the Mb300 Horizontal Array Kit. This instruction sheet gives a brief overview of how each of these suspension kits could be used so the correct kit can be selected. In addition, each of the suspension kits includes a separate instruction sheet with complete dimensions and full details for use.

SUSPENDING SYSTEM 200™ ENCLOSURES

The molded enclosures used in System 200™ are lightweight and structurally sound. Each enclosure has three (Sb120a) or four (Sx100, Sb120 and Sx200) metric M8 x 1.25 metal inserts molded into the enclosure to aid in suspension and aiming.¹ A single insert, correctly used, will safely suspend the weight of one enclosure with a safety factor in excess of 5 to 1. It will not support additional weight with a sufficient safety factor for overhead lifting. If multiple System 200™ enclosures are suspended, Mb200 Installation Kits must be used to support and aim each enclosure.

Mb100 Eyebolt Attachment Kit

The Mb100 Eyebolt Attachment Kit is intended for very simple installations only, to suspend an individual Sx100, Sb120 or Sx200 loudspeaker in a near-vertical orientation (see Figure 1).² A second, redundant insert point is provided in the top of the enclosure so a supplementary independent means of suspension can be attached when regulations specify. The enclosure can be positioned to angle downward slightly through the use of the pull-up point at the back of the enclosure.

Note that two top suspension cables should be used at all times to provide needed stability to the installation (see Figure 1).

Do not suspend System 200™ enclosures face down from the ceiling using the Mb100 Eyebolt Attachment Kit. The M8 eyebolts are not rated for lifting loads at 90°, and such a configuration makes stabilization of the enclosure difficult. Instead, use the Mb200 Installation Kit for this and most other situations (see the Mb200 Installation Kit section).

Mb200 Installation Kit

The Mb200 Installation Kit provides a cost-effective and safe means of attaching System 200™ loudspeakers to walls or suspending them overhead (see Figure 2). The

kit contains a large, reinforced-steel bracket with a selection of thru-holes which allow the bracket to be mounted to different surfaces in a range of orientations. This kit is recommended for most installations, and is essential when arraying System 200™ loudspeakers.

The Mb200 U-bracket extends from top to bottom of the System 200™ loudspeaker and attaches at both ends. This securely "captures" the enclosure, allowing further loudspeaker systems to be added without increasing the stress on the first enclosure. It also allows the loudspeaker to be aimed in the desired direction and locked in place. For even greater flexibility, three-hole-pattern groups compatible with the OmniMount® Series 100³ support system have also been incorporated into the Mb200 Installation Kit's U-bracket (see Figure 2B, reference A).

Vertical arrays can be constructed by "daisy chaining" Mb200's together (see Figure 3). To achieve a slight downward angle, attach an additional cable to the lower Mb200 and use this cable to pull up the array, securing the cable at the desired angle and position.

No more than two enclosures should be suspended in a vertical array in this manner. If a taller array is required, provide a means of independent suspension for the remaining enclosures.

Again, note the use of two top suspension cables (see Figure 3) which provide stability and should be used at all times.

Mb300 Horizontal Array Kit

The Mb300 Horizontal Array Kit must be used in conjunction with the Mb200 Installation Kit. Select the required number of kits from the chart below:

HORIZONTAL ARRAY		
Number of Enclosures in Array:	Number of Kits Req'd	
	Mb200	Mb300
2	2	1
3	3	2
4	4	3
5	5	4
6 (complete circle)	6	6

Each Mb300 Horizontal Array Kit consists of two connector brackets (one top, one bottom) plus the hardware required to join these brackets to the U-brackets from two Mb200 Installation Kits. This combination of one Mb300 Horizontal Array Kit plus two Mb200 Installation Kits forms a solid frame suitable for suspending two System 200™ loudspeakers in a horizontal array (see Figure 4). Holes are provided in the Mb300 brackets for attaching cables for suspension.

Two mounting angles—50° and 60°—are possible using the Mb300 Horizontal Array Kit. Use of the 50° angle results in a tight array with speaker sides touching (see Figure 5); use of the wider orientation results in improved coverage for multiple loudspeakers and allows construction of a complete, 360° array (see Figure 6 for diagram of one half of a 360° array). A vertical array can also be constructed using the Mb300 Horizontal Array Kit, but relatively few aiming angles are available.

1. At time of publication, only these four models were available in the System 200™ series, but additional models are planned.

The general concepts and instructions given here should remain applicable for later models.

2. The Mb100 Eyebolt Attachment Kit is not recommended for suspension of active systems such as the Sb120a.

3. OmniMount® is a registered trademark of OmniMount Systems, Inc.

FIGURE 1 — Overhead Suspension Using the Mb100 Eye-Bolt Attachment Kit

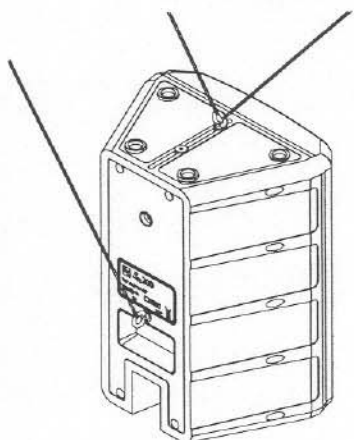


FIGURE 2C — Horizontal Overhead Suspension Using the Mb200 Installation Kit

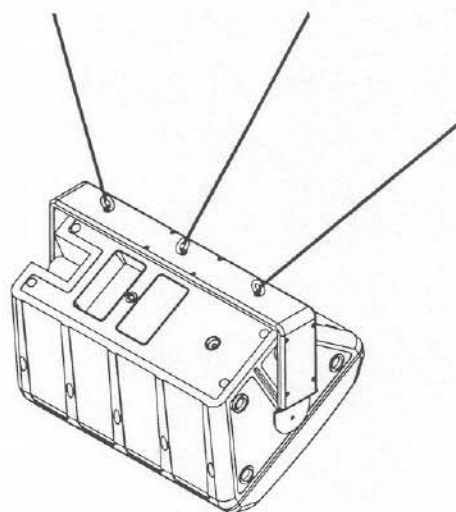
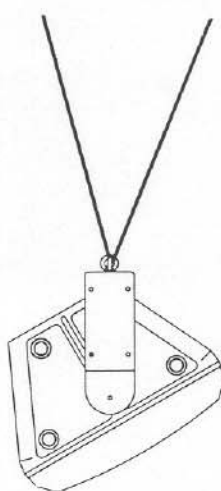


FIGURE 2A — Wall Mounting Using the Mb200 Installation Kit

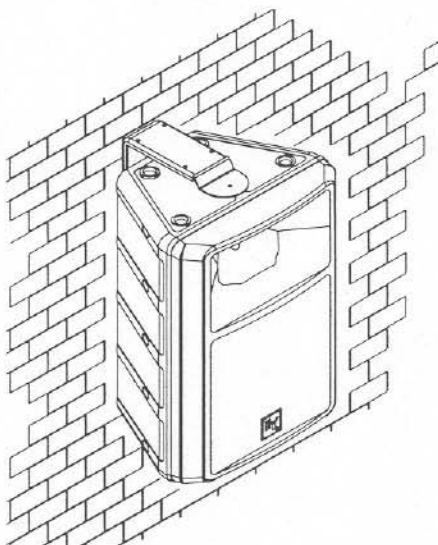


FIGURE 3 — Vertical Array Using the Mb200 Installation Kit

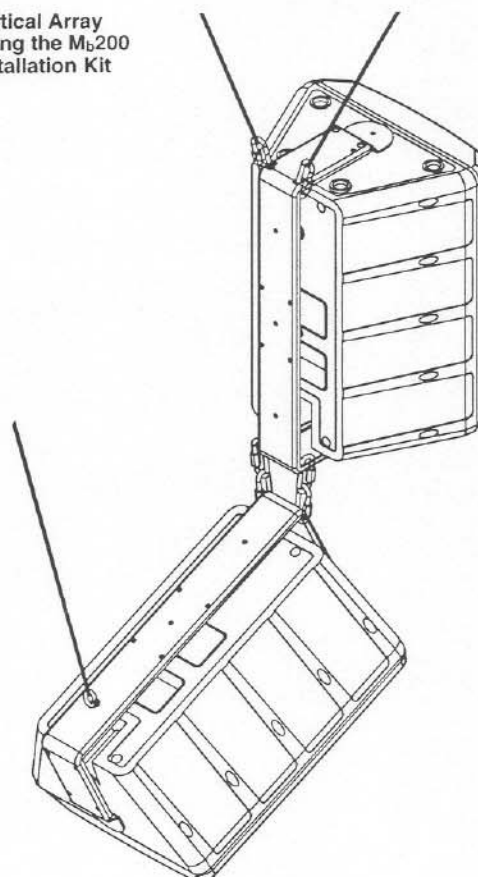
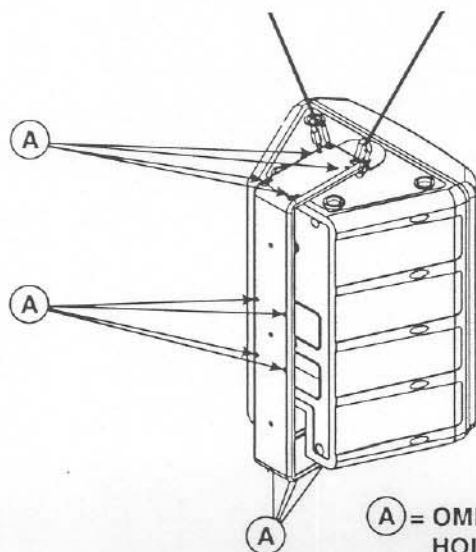


FIGURE 2B — Vertical Overhead Suspension Using the Mb200 Installation Kit



(A) = OMNIMOUNT
HOLE LOCATION

FIGURE 4A — Brackets from One M_b300 Horizontal Array Kit and Two M_b200 Installation Kits, Positioned for Assembly

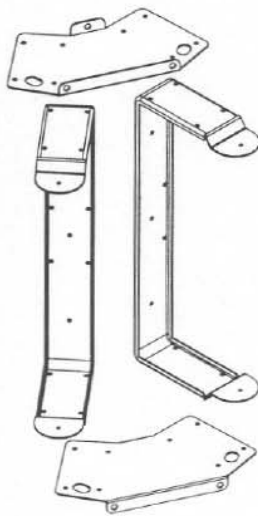


FIGURE 4B — Assembled Horizontal Array Mounting Frame Consisting of One M_b300 Horizontal Array Kit and Two M_b200 Installation Kits

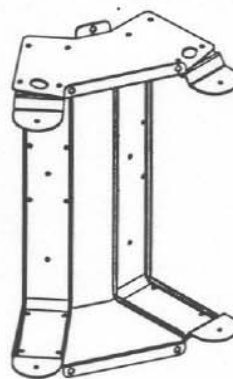


FIGURE 5 — Two Enclosure Horizontal Array Using the M_b300 Horizontal Array Kit

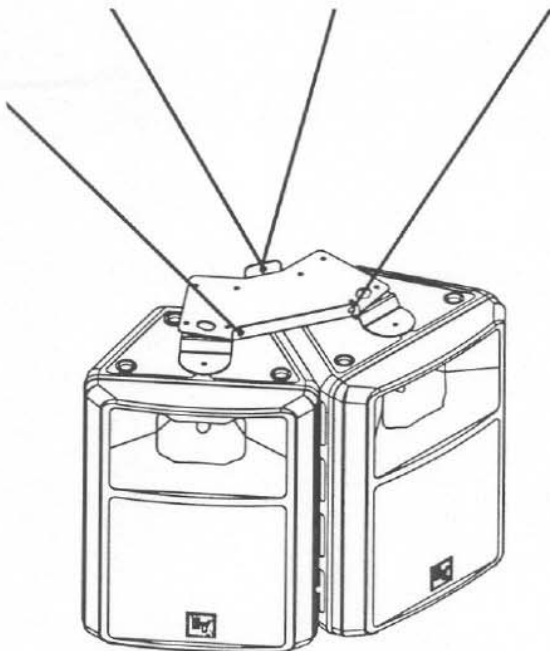
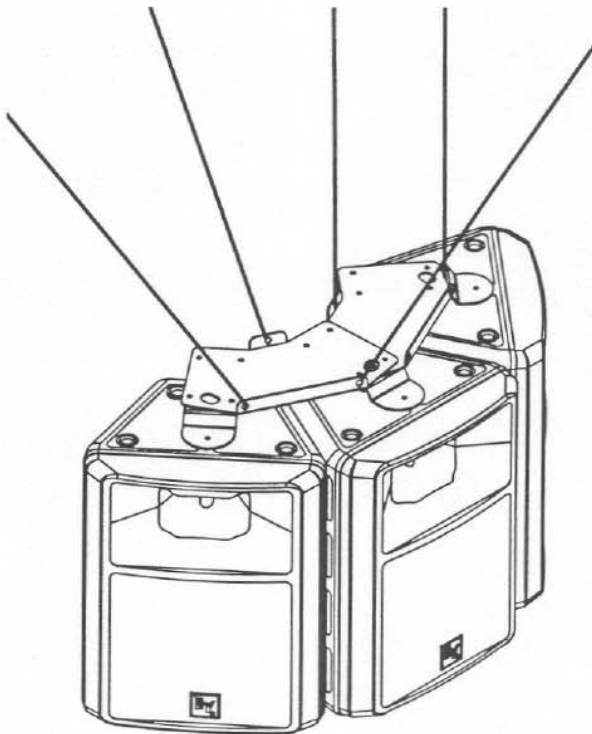


FIGURE 6 — Orientation for Full Circle (360°) Array Using the M_b300 Horizontal Array Kit (partial array shown)



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