

## Mb500

### Installation Kit

- Mounting kit for System 2000™ speaker: Sx500<sup>1</sup>
- Versatile design allows the speaker to be aimed from a wall with a +/- 30°
- Provides a rigid frame for flying one or two speakers
- Creates arrays of two to six speakers when used with the Mb600
- Includes two steel plates for securing the two cabinet halves together as well as providing a locking mechanism when used in arrays or when suspended from above

1. At the time of publication, the only System 2000™ model to use the Mb500 installation kit is the Sx500. Additional models are planned, and the general concepts and instructions given here should remain applicable for later models.

#### Description

The Mb500 installation kit consists of a U-bracket, two mounting plates, eight M8 x 1.25 hex-head bolts, eight 5/16 lock washers, two M12 x 1.75 hex-head bolts, two 3/8 lock washers, two friction washers, two 1/2 lock washers, and two 3/8-24 hex-head bolts (see Figure 1).

#### Wall Mounting:

The robust design of the Mb500 installation bracket allows the System 2000™ speaker to be mounted with a rotation of +/- 30° to obtain the desired sound coverage in almost any position.

#### Flying Installation:

The Mb500 bracket “captures” the speaker in a rigid frame which has structurally sound locations for attaching rigging hardware. These attachment points are four 12.7-mm (1/2-in.) diameter holes located on the ends of the bracket. A 3/8-in “quick link” (or similar hardware) can be connected readily to each attachment point.

System 2000™ speakers can be flown vertically individually or in pairs (see Figures 5)

Note: For single speakers, the Mb500 allows for pointing the speakers down at angles of 10° or greater. If less than 10° is needed, the Mb700 eyebolt kit should be used.

#### System 2000™ Horizontal Arrays

Arrays of two to six speakers are securely supported in a frame comprised of Mb500 and Mb600 brackets. To create a horizontal array, two Mb500 brackets are simply locked into the correct alignment position using the brackets from the Mb600 horizontal array kit (see Figure 6). The array is extended by using one additional Mb500 bracket and one Mb600 kit for each additional speaker. To complete the circle for a six speaker array, one additional Mb600 kit is required. Please refer to Chart 2 to select the exact number of each kit needed, based on the desired array size. (note: refer to the Mb600 horizontal array kit engineering data sheet for detailed instructions on System 2000™ horizontal array construction using Mb500 installation and Mb600 horizontal array kits.)

#### Wall-Mounting Instructions

Caution: Due to the weight of System 2000™ speakers, it is imperative that the Mb500 bracket be properly secured to the wall. The choice of fastener (not provided with this kit) will be determined by the material and construction of the mounting surface.

Refer to Figures 1 and 3 for the following steps:

1. Remove the paper backing from one of the friction washers (C) and, making sure the holes are aligned, attach to the U-bracket (H) as shown. Attach the second friction pad in a similar manner.
2. Attach the U-bracket to the wall using fasteners (not supplied) that are suitable for the construction material.
3. Remove the hole plugs from the ends of the System 2000™ speaker by gently prying with a small screwdriver.
4. Attach the two bracket mounting plates (I) to the top and bottom of the System 2000™ speaker using eight M8 bolts (E) and eight small lock washers (A). At this point, only finger tighten the bolts for the bottom plate, and insert the bolts for the top plate only half-way. This will make it easier to attach the U-bracket to the top mounting plate in step 6.
5. Place one of the large lock washers (D) on each of the two M12 bolts (G).
6. Place the speaker into the U-bracket and finger tighten the M12 bolts.
7. Tighten the M8 bolts, being sure not to overtighten.

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## CAUTION: OVERTIGHTENING BOLTS CAN RESULT IN SYSTEM FAILURE AND INJURY.

- Position the speaker for the desired coverage and tighten the M12 bolts.

Note: The 3/8-24 bolts (F) are used to lock the speaker parallel to the bracket and prevent it from being rotated. This is needed for proper alignment when arraying and when flying the speaker.

### Flying Instructions

**Warning: Suspending any object is potentially dangerous and should be attempted only by individuals who have a thorough knowledge of the techniques and regulations of rigging objects overhead. Electro-Voice sanctions suspending the Systems 2000™ speakers only when all current national, federal, state and local regulations are taken into account. When the System 2000™ speaker is suspended, Electro-Voice strongly recommends that the systems be inspected at least once a year. If any sign of weakness is detected, corrective action should be taken immediately.**

**Note: A maximum of two speakers can be suspended together vertically using the Mb500 installation bracket.**

Refer to Figure 1 for the following steps:

- Remove the paper backing from one of the friction washers (C) and, making sure the holes are aligned, attach to the U-bracket (H) as shown. Attach the second friction pad in a similar manner.
- Remove the hole plugs from the ends of the System 2000™ speaker by gently prying with a small screwdriver.
- Attach the two bracket mounting plates (I) to the top and bottom of the System 2000™ speaker using eight M8 bolts (E) and eight small lock washers (A). Tighten the M8 bolts, being sure not to overtighten.

## CAUTION: OVERTIGHTENING BOLTS CAN RESULT IN SYSTEM FAILURE AND INJURY.

- Place one of the large lock washers (D) on each of the two M12 bolts (G).

- Place the speaker into the U-bracket and tighten the M12 bolts.
- Place one of the medium lock washers (B) on each of the 3/8-24 bolts (F).
- Position the speaker parallel to the U-bracket. The 3/8-24 holes should align with large holes in the bracket mounting plates. Tighten the bolts until the lock washer is compressed.

### Vertical Flying

#### — Single Speaker Suspension —

Refer to Figure 5A for the following steps:

- Following steps 1-7 of the Flying Instructions, fasten the speaker into the bracket.
- Install one M8 x 25 mm (5/16 x 1 in.) shoulder eyebolt (not provided with kit) into the lower center mounting hole in bracket.
- Hang the speaker using the 12.7-mm (1/2-in.) holes located nearest to where the bracket attaches to the speaker.
- Position speaker for the desired coverage by pulling up on the rear eyebolt until the appropriate angle is achieved. Be sure the eyebolt is oriented correctly for the force applied. (see Figure 4).

### Vertical Flying

#### — Two Speaker Suspension —

Refer to Figure 5B for the following steps:

- Following steps 1-7 for the Flying Instructions, fasten the speaker into the bracket.
- Install one M8 x 25 mm (5/16 x 1 in.) shoulder eyebolt (not provided with kit) into the lower center mounting hole in one of the brackets.
- Link the two brackets together by joining each of the two 12.7-mm (1/2-in.) holes nearest the back of the bracket with a series of two 3/8-in. quick-link chain connectors (see Figure 5B). Be sure that the quick-link connection is made at the opposite end of the bracket from the previously installed M8 x 25 mm shoulder eyebolt.
- Suspend the speakers using the two 12.7-mm (1/2-in.) holes nearest the back of the bracket. Suspend from the

bracket which does not contain the M8 x 25 mm shoulder eyebolt. **Be sure to use the bracket's rear 12.7-mm (1/2-in.) hole only.** The weight of the speakers is then supported by the metal brackets and not by the plastic structure of the speakers.

- Position speaker for the desired coverage by pulling up on the rear eyebolt until the appropriate angle is achieved. Be sure the eyebolts are oriented correctly for the force applied (see Figure 4).

Note: If more independence is required for aiming speakers, an eyebolt may be used on the upper Mb500 U-bracket to aim the upper speaker independent of the lower speaker.

### Uniform Limited Warranty Statement

Electro-Voice products are guaranteed against malfunction due to defects in materials or workmanship for a specified period, as noted in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual, beginning with the date of original purchase. If such malfunction occurs during the specified period, the product will be repaired or replaced (at our option) without charge. The product will be returned to the customer prepaid.

**Exclusions and Limitations:** The Limited Warranty does not apply to: (a) exterior finish or appearance; (b) certain specific items described in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual; (c) malfunction resulting from use or operation of the product other than as specified in the product data sheet or owner's manual; (d) malfunction resulting from misuse or abuse of the product; or (e) malfunction occurring at any time after repairs have been made to the product by anyone other than EVI Audio Service or any of its authorized service representatives. **Obtaining Warranty Service:** To obtain warranty service, a customer must deliver the product, prepaid, to EVI Audio Service or any of its authorized service representatives together with proof of purchase of the product in the form of a bill of sale or receipted invoice. A list of authorized service representatives is

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available from EVI Audio Service at 600 Cecil Street, Buchanan, MI 49107 (800/234-6831 or FAX 616/695-4743). **Incidental and Consequential Damages Excluded:** Product repair or replacement and return to the customer are the only remedies provided to the customer. Electro-Voice shall not be liable for any incidental or consequential damages including, without limitation, injury to persons or property or loss of use. Some states do not allow the exclusion or limitation of incidental or consequential

damages so the above limitation or exclusion may not apply to you. **Other Rights:** This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

**Electro-Voice Accessories** are guaranteed against malfunction due to defects in materials or workmanship for a period of one (1) year from the date of original purchase. Additional details are included in the Uniform Limited Warranty statement.

For warranty repair, service information, or a listing of the repair facilities nearest you, contact the service repair department at: 616/695-6831 or 800/685-2606.

**For technical assistance,** contact Technical Support at 800/234-6831 or 616/695-6831, M-F, 8:00 a.m. to 5:00 p.m. Eastern Standard time.

Specifications subject to change without notice.

**Chart 1: Mb500 Installation Kit Parts List**

Item	Part Number	Quantity	Description
A	38144	8	5/16 split-ring lock washer
B	38834	2	3/8 split-ring lock washer
C	38879	2	Friction washer
D	38880	2	1/2 split-ring lock washer
E	63310	8	M8 x 1.25 x 25 mm hex head bolt
F	63380	2	3/8-24 x 2 hex head bolt
G	63373	2	M12 x 1.75 x 20 mm hex head bolt
H	73673	1	U-bracket
I	73677	2	Bracket mounting plate

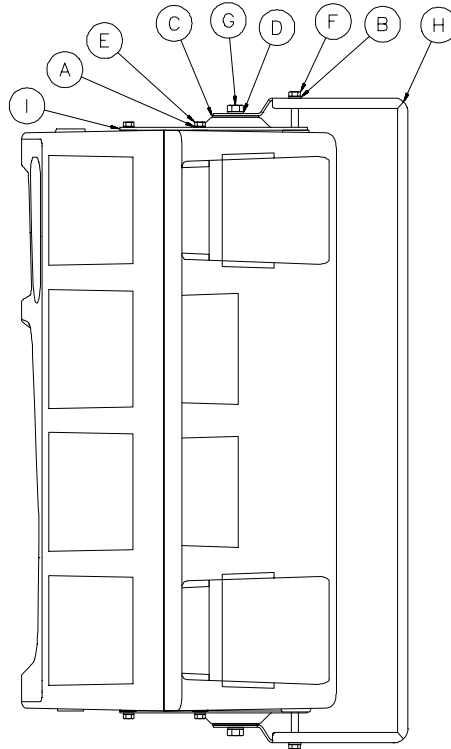
**Chart 2: Kit Requirements for System 2000™ Horizontal Array Construction**

# of Enclosures in Array:	# of Kits Required	
	Mb500	Mb600
2	2	1
3	3	2
4	4	3
5	5	4
6 (complete circle)	6	6

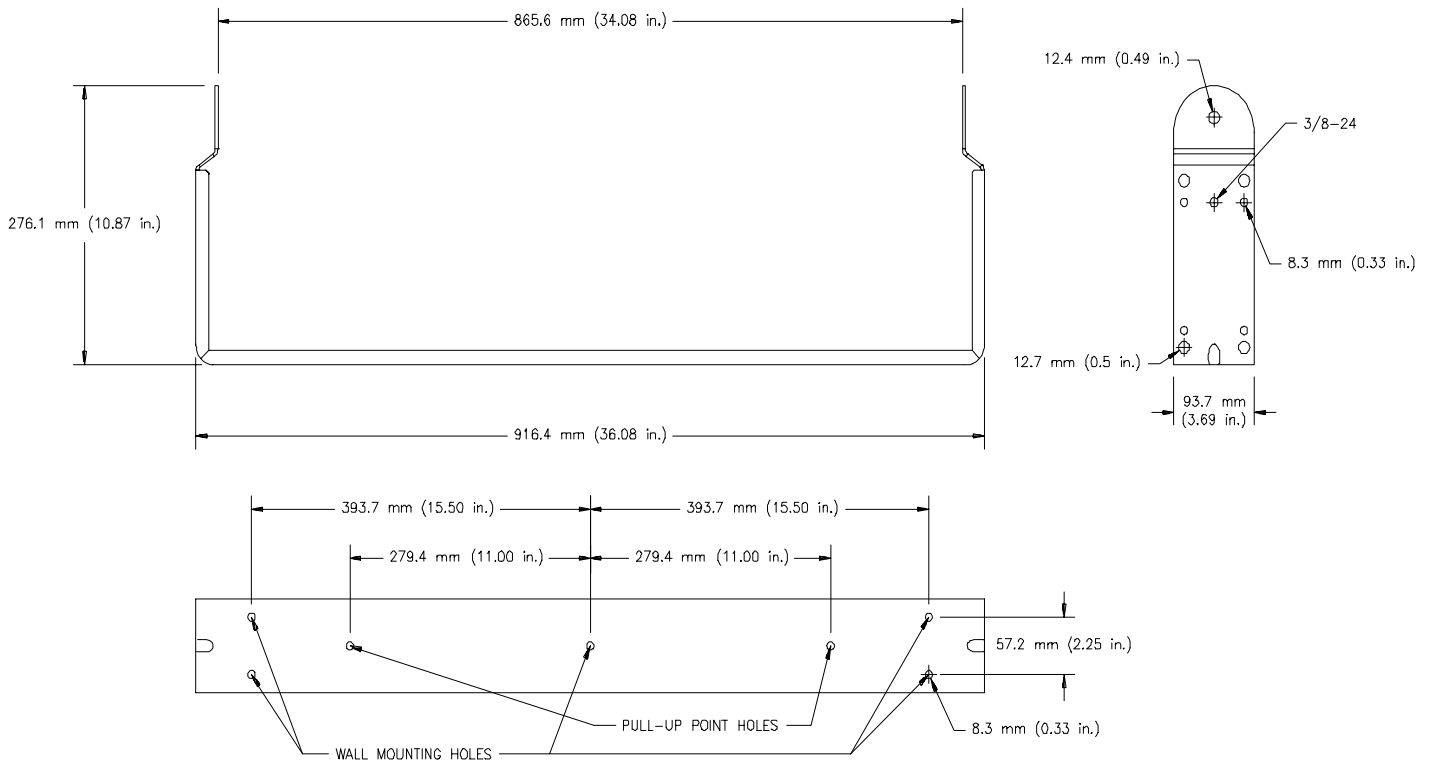
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**Figure 1—Attaching Mb500 Bracket to Sx500 Speaker System**

Mb500 Installation Kit



**Figure 2—Mb500 Installation Kit U-Bracket Dimensions**



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Figure 3—Top View of Mb500 Kit on Sx500

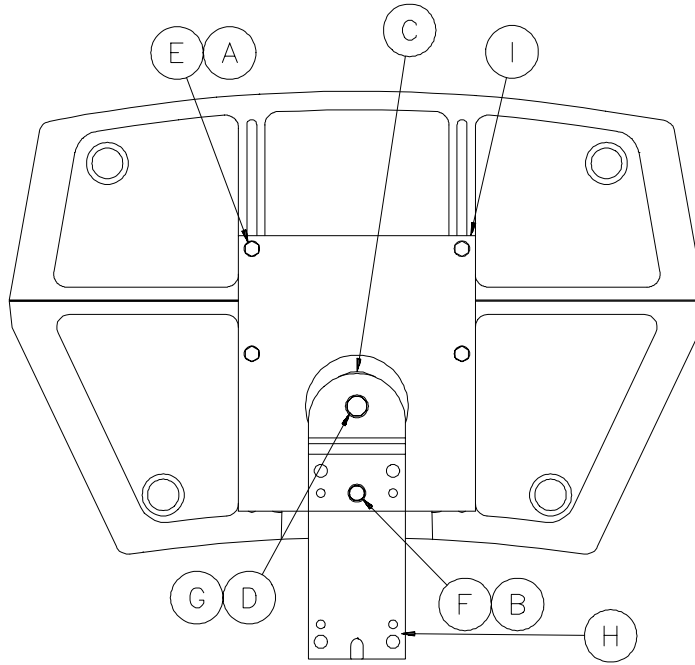
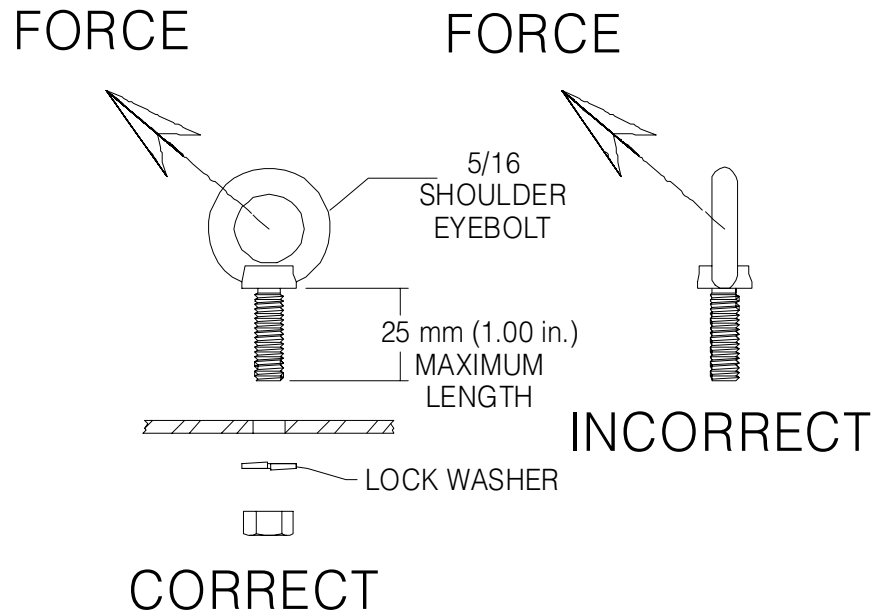


Figure 4—Correct and Incorrect Eyebolt Orientation

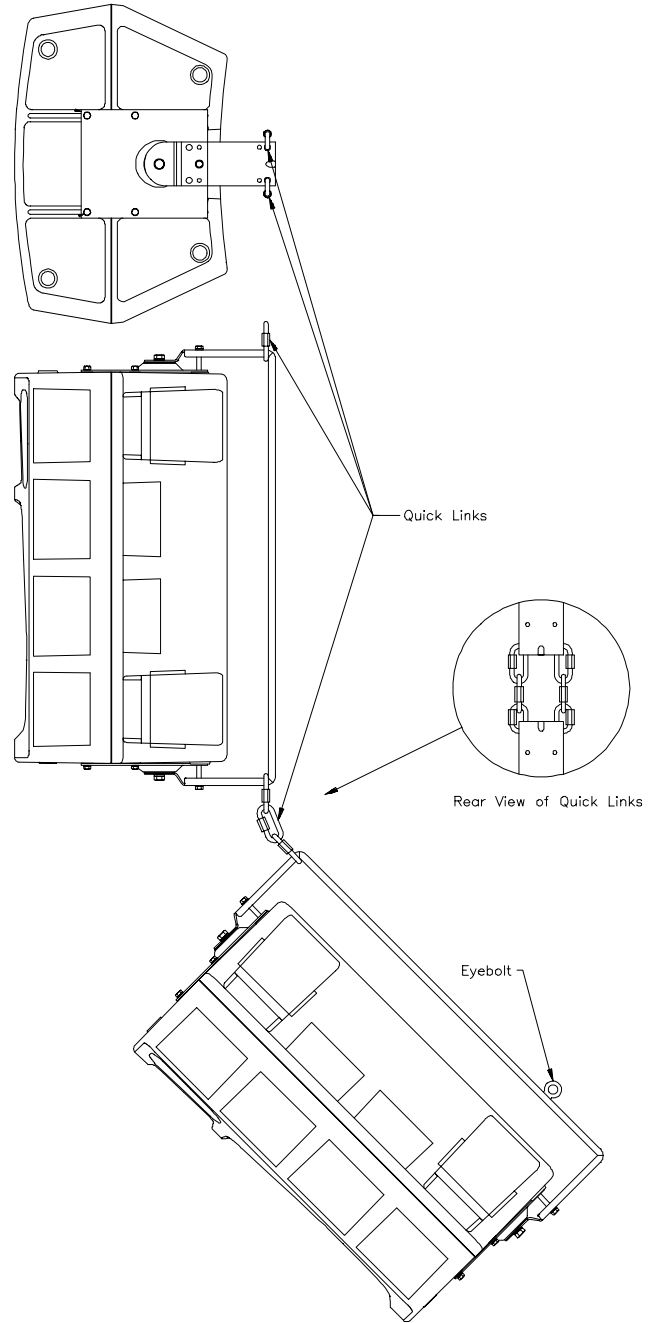
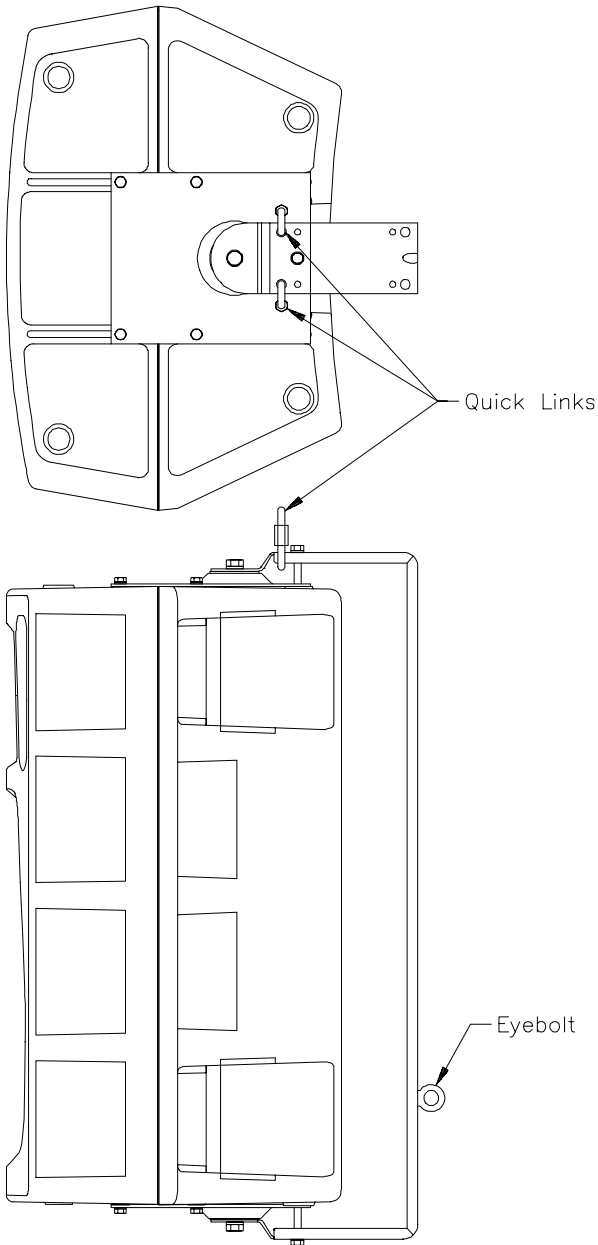


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Figure 5A—Vertical Suspension of One Sx500 Speaker

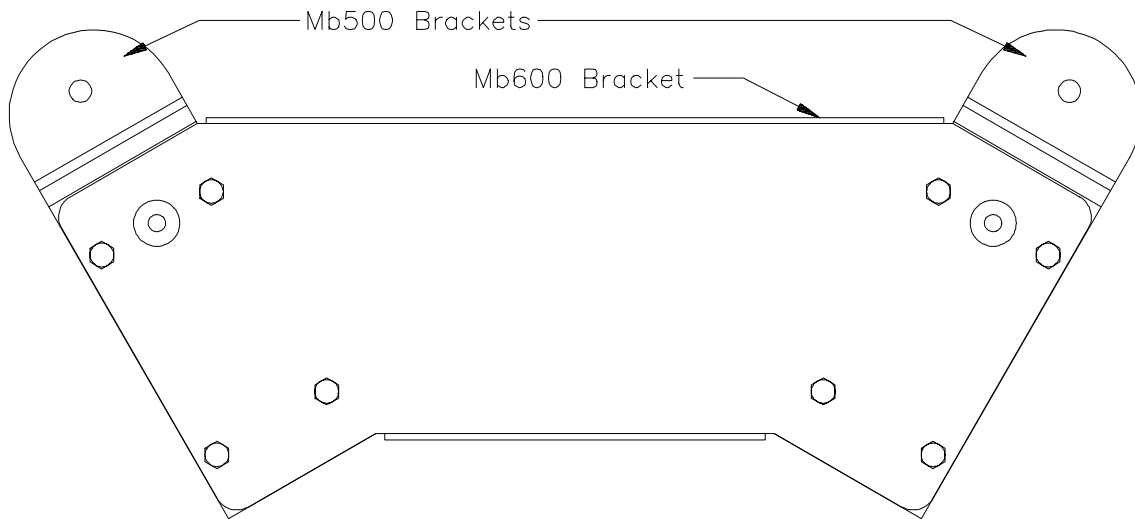
Figure 5B—Vertical Suspension of Two Sx500 Speakers using Mb500 Installation Kits

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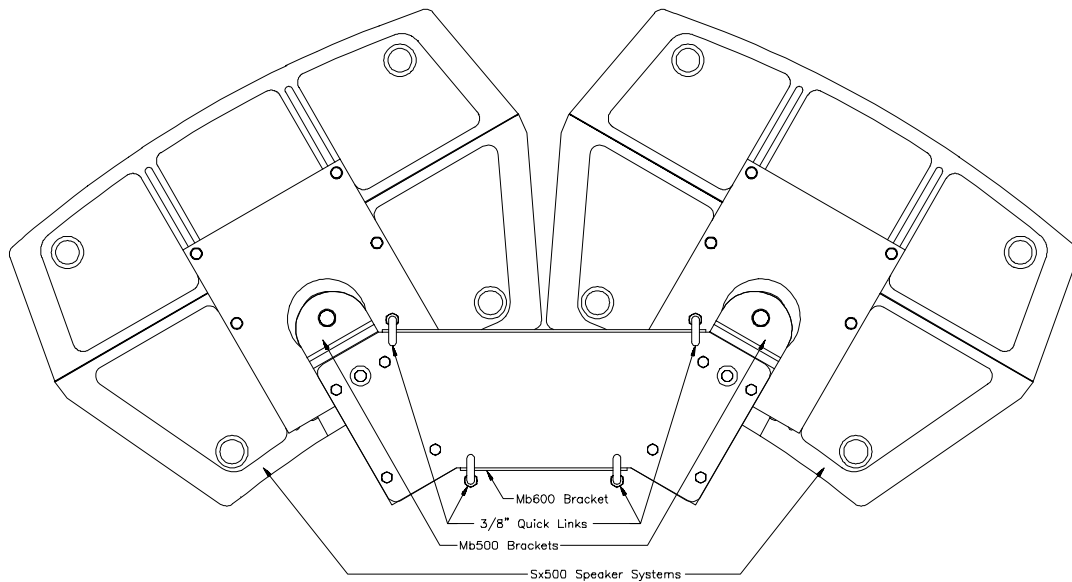


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**Figure 6A—Top/Bottom View of Frame Structure for Horizontal Array using Mb500 and Mb600 Brackets**



**Figure 6B—Sx500 Horizontal Array using Mb500 and Mb600 Brackets**



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## Specifications

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### Wall Mounting Holes:

Five 8-mm (5/16-in.) diameter holes  
(see Figure 2)

### Enclosure Mounting Holes:

Two 12-mm (31/64-in.) diameter  
holes, top and bottom

### Material:

10-gauge cold-rolled steel

### Finish:

Black wrinkle powder coat

### Net Weight:

7.3 kg (16 lb)

### Shipping Weight:

9.1 kg (20 lb)

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# Electro-Voice®

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