EVID SURFACE-MOUNT SYSTEMS

EVID premium commercial loudspeakers bring best-in-class sonic characteristics and stunning high fidelity to a broad range of installation applications, including performance and sports venues, retail environments, conference and meeting rooms, and hospitality settings, such as restaurants and bars. Available in both flush-mount and surface-mount configurations, EVID loudspeakers feature innovative designs that beautify not only the sound of a room but also its looks. EVID 3.2, 4.2 and 6.2 models are available in "T"-designated versions with internal 70 or 100 V line transformer. High power and high performance, EVID is the superior solution to today's installation needs.

EVID 3.2 — DUAL 3.5″ TWO-WAY SURFACE-MOUNT LOUDSPEAKER

- Ultra-compact full range
- Ideal for restaurants, bars, patios and retail
- Vented LF enclosure
- 0.75″ titanium diaphragm HF driver with neodymium magnetic structure
- Full-bandwidth overload protection (LF and HF)

- Elliptical weather-resistant ABS enclosure
- Paintable black or white finish
- Magnetically shielded for video applications
- Strong-Arm Mount for easy, flexible aiming
- "T" version for 70 or 100 V distributed systems

EVID 4.2 — DUAL 4″ TWO-WAY SURFACE-MOUNT LOUDSPEAKER

- Compact full range
- Ideal for restaurants, bars, patios and retail
- Vented LF enclosure
- 1″ titanium diaphragm HF driver with neodymium magnetic structure
- Coherent Coverage Waveguide

- Full-bandwidth overload protection (LF and HF)
- Elliptical weather-resistant ABS enclosure
- Paintable black or white finish
- Magnetically shielded for video applications
- Strong-Arm Mount for easy, flexible aiming
- "T" version for 70 or 100 V distributed systems

## EVID 6.2 — DUAL 6″ TWO-WAY SURFACE-MOUNT LOUDSPEAKER

- Compact full range
- Ideal for shopping malls, sports bars and health clubs
- Vented LF enclosure
- 1″ titanium diaphragm HF driver with neodymium magnetic structure
- Coherent Coverage Waveguide

- Full-bandwidth overload protection (LF and HF)
- Elliptical weather-resistant ABS enclosure
- Paintable black or white finish
- Magnetically shielded for video applications
- Strong-Arm Mount for easy, flexible aiming
- "T" version for 70 or 100 V distributed systems

EVID 3.2, EVID 4.2 AND EVID 6.2

INCLUDED

EV's Strong-Arm Mount (SAM) comes with each EVID system and includes a hex-key-tool. SAM has angle markers to make installation easier.


Angle markers

100°   90°
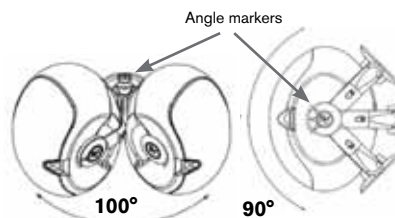
EVID 12.1 — 12″ CORNER-MOUNT, DUAL VOICE COIL SUBWOOFER

- Supplemental bass for indoor systems
- Ideal for sports bars, dance floors, retail and health clubs
- High-excursion woofer with dual voice coil to accommodate L/R channels
- High sensitivity, high power-handling
- Crossed-over pass-thru for up to four satellite speakers
- Trapezoidal shape for flexible placement and optimal bass loading

- Steel-reinforced cabinet with mounting hardware included
- Paintable black or white finish
- One 3/8″ 16-thread forged steel eyebolt is included. A second is necessary for hanging.
- The mounting bracket passes EIA 636 at a safety factor of 8:1 and included for on-wall or corner mounting.
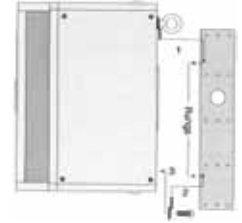
EVID IN-WALL SPEAKER SYSTEMS

EVID FM 4.2 — 4″ TWO-WAY FLUSH-MOUNT LOUDSPEAKER

- Shallow profile, ideal for tight wall or ceiling spaces
- Tuned passive radiator extends bass, enhances performance
- High quality 1″ titanium dome tweeter
- Full-bandwidth overload protection
- 70 V, 100 V and 8 Ω operation in the same model for off-the-shelf versatility
- Front-panel mode/wattage switch

- Fully-sealed enclosure provides superior isolation to protect adjacent rooms
- Secure Phoenix-style pass-through connectors for easy wiring and installation
- Four point "quick mounting" tabs for fast attachment in any wall cavity
- Can-mounted transformer for enhanced rigidity
- Ribbed back can eliminates flexing

EVID FM 6.2 — 6″ TWO-WAY FLUSH-MOUNT LOUDSPEAKER

- Shallow profile, ideal for tight wall or ceiling spaces
- Tuned passive radiator extends bass, enhances performance
- High quality 1″ titanium dome tweeter
- Full-bandwidth overload protection
- 70 V, 100 V and 8 Ω operation in the same model for off-the-shelf versatility
- Front-panel mode/wattage selector

- Fully-sealed enclosure provides superior isolation to protect adjacent rooms
- Secure Phoenix-style pass-through connectors for easy wiring and installation.
- Four point "quick mounting" tabs for fast attachment in any wall cavity
- Can-mounted transformer for enhanced rigidity
- Ribbed back can eliminates flexing

See page 49 for EVID Rigging and Accessories.

	EVID 3.2	EVID 4.2	EVID 6.2	EVID 12.1	EVID FM 4.2	EVID FM 6.2
Frequency Range (-10 dB)	85–20,000 Hz	65–20,000 Hz	62–20,000 Hz	40–140 Hz	52–20,000 Hz	52–20,000 Hz
Sensitivity (SPL, 1 W/1 m)	87 dB	89 dB	94 dB	100 dB (1/4 space)	87 dB	90 dB
Max. SPL/1m (calc.)	112 dB	115 dB	122 dB	128 dB (1/4 space)	110 dB	115 dB
Power Handling (Continuous, Peak)	75 W, 300 W	100 W, 400 W	150 W, 600 W	175 W, 700 W (per coil)	50 W, 200 W	75 W, 300 W
Transformer taps (transformer version only)	70 V: 5 W 100 V: 10 W	70 V: 3.75 W 70 V/100 V: 7.5, 15, 30 W	70 V: 7.5 W 70 V/100 V:15, 30, 60 W	—	70 V: 1.75, 3.75, 7.5, 15, 30 W	70 V: 7.5, 15, 30, 60 W
Coverage, H x V	140° x 100°	120° x 80°	100° x 80°	—	150° x 150°	120° x 120°
LF Transducer	Two 3.5″	Two 4″	Two 6″	12″	4″, plus 4″ passive radiator	6″, plus 6″ passive radiator
HF Transducer	0.75″	1″	1″	—	1″ (titanium dome)	1″ (titanium dome)
Nominal impedance (non-transformer version)	8 Ω	8 Ω	8 Ω	8 Ω	8 Ω	8 Ω
Minimum impedance (non-transformer version)	6 Ω	6 Ω	6 Ω	6 Ω	—	—
Input connections	Spring terminal	Spring terminal	Spring terminal	Spring terminal	4-pin Phoenix	4-pin Phoenix
Dimensions (H x W at front x D)	9.2″ x 5.1″ x 6.5″ (234 x 127 x 165 mm)	12.2″ x 6.9″ x 8.5″ (234 x 127 x 165 mm)	16.5″ x 9″ x 11.75″ (419 x 228 x 298 mm)	16.25″ x 23″ x 12″ (412 x 584 x 305 mm)	13.78″ x 7.41″ x 3.76″ (350 x 188.3 x 95.6 mm)	18.31″ x 10.08″ x 3.95″ (465 x 256 x 100.3 mm)
Net Weight (incl. mounting bracket)	3.3 lb (1.5 kg)	8.5 lb (3.9 kg)	12 lb (5.3 kg)	40 lb (18.1 kg)	6.39 lb (2.9 kg)	12.79 lb (5.8 kg)

LOUDSPEAKERS

CONCERT

INSTALL

PORTABLE PA

EVID

Designed with both the contractor and listener in mind, EVID ceiling speakers are high-performance problem-solvers that deliver exceptional sound in even the most challenging situations. From the compact power of the C4.2 to the exclusive waveguide-coupled design of the C8.2HC, each great-sounding EVID solution is uniquely suited to handle installer needs across a specific range of intended applications. Sonically superior and aesthetically pleasing, every EVID ceiling model installs with ease and provides lasting value. For commercial sound across all venue types, EVID has the ceiling covered.

EVID C4.2   4″ TWO-WAY COAXIAL CEILING LOUDSPEAKER

- Designed for use in air-handling spaces
- Ported enclosure for extended bass response
- Waveguide-coupled 0.75″ titanium-coated tweeter
- Full-bandwidth overload protection
- Integrated transformer for 70 V, 100 V or 8 Ω use
- Front-panel mode/wattage selector

- Safe, easy installation with included tile bridge and mounting ring
- Available in black or white
- Complete package, requires no additional accessories

EVID C8.2
EVID C8.2LP   8″ TWO-WAY COAXIAL CEILING LOUDSPEAKER

- Ported enclosure for extended bass response
- Waveguide-coupled 1″ titanium-coated tweeter
- Full-bandwidth overload protection
- Integrated transformer for 70 V, 100 V or 8 Ω use
- Front-panel mode/wattage selector
- Safe, easy installation with included

- tile bridge and mounting ring
- Complete package, requires no additional accessories
- Low-profile LP version delivers rich sound in tight spaces
- EVID C8.2 available in black or white

EVID C8.2HC   8″ PATTERN-CONTROL TWO-WAY COAXIAL CEILING LOUDSPEAKER

- Maximum fidelity and intelligibility for high ceilings
- Ported enclosure for extended bass response
- Waveguide-coupled 1″ titanium-coated tweeter
- Full-bandwidth overload protection
- Integrated transformer for 70 V, 100 V or 8 Ω use
- Front-panel mode/wattage selector

- Safe, easy installation with included tile bridge and mounting ring
- White semi-gloss perforated grille
- Complete package, requires no additional accessories

EVID C10.1   10″ HIGH-POWER CEILING SUBWOOFER

- Supplemental LF for ceiling systems
- High-excursion woofer in ported enclosure for extended lows
- Low pass network with overload protection
- Integrated transformer for 70 V, 100 V or 8 Ω use
- Front-panel mode/wattage selector

- Internally damped heavy-gauge steel enclosure
- Safe, easy installation with included tile bridge and mounting ring
- White semi-gloss perforated grille
- Complete package, requires no additional accessories

EVID C12.2   12″ TWO-WAY COAXIAL CEILING LOUDSPEAKER

- Full-range power for high ceilings, large spaces
- High sensitivity, high power-handling
- Integrated transformer with automatic saturation compensation for distortion-free 70 V, 100 V or 8 Ω use
- Front-panel mode/wattage selector
- White semi-gloss perforated grille
- Heavy-gauge steel enclosure in black

- 3/8″ threaded-rod mount points for open ceilings
- Safe, easy installation with included tile bridge and mounting ring
- Complete package, requires no additional accessories

	EVID C4.2	EVID C8.2 EVID C8.2LP	EVID C8.2HC	EVID C.12.2	EVID C10.1
Frequency Range (-10 dB)	65–20,000 Hz	50–20,000 Hz	50–20,000 Hz	65–20,000 Hz	45–180 Hz
Sensitivity (SPL, 1 W @ 1 m)	86 dB	91 dB	93 dB	100 dB	94 dB
Power Handling (8 Ω)	80 W (overload protected)	100 W (overload protected)	100 W (overload protected)	100 W	150 W
Coverage Pattern	130° conical	110° conical	75° conical (@ >1 kHz)	90° average	180°
Transformer Power Taps	1.88 (70 V only), 3.75, 7.5, 15, 30 W	1.88 (70 V only), 3.75, 7.5, 15, 30 W	7.5 (70 V only), 15, 30, 60 W	4 (70 V only), 8, 16, 32, 64 W ASC protected	7.5 (70 V only), 15, 30, 60 W
LF Transducer	4″ polypropylene cone	8″ polypropylene cone	8″ polypropylene cone plus waveguide	12″ EVID 920-8B (coax)	10″ polypropylene cone
HF Transducer	0.75″ Ti Mylar Laminate Dome	1″ Ti Mylar Laminate Dome	1″ Ti Mylar Laminate Dome	1″ coax	—
Input Configuration	8 Ω, 70 V, 100 V	8 Ω, 70 V, 100 V	8 Ω, 70 V, 100 V	8 Ω / 70 V / 100 V	8 Ω, 70 V, 100 V
Dimensions (H x Diameter)	6.93″ x 7.13″ (176 x 181 mm)	7.01″ x 10.65″ (178 x 270 mm) 10.04″ x 10.63″ (255 x 270 mm)	11.99″ x 12.60″ (303 x 320 mm)	13.18″ x 16.3″ (333 x 414 mm)	11.99″ x 12.60″ (303 x 320 mm)
Net Weight	6.0 lb (2.7 kg)	11.0 lb (5.0 kg)	13.2 lb (6.0 kg)	27.12 lb (12.3 kg)	15.4 lb (7.0 kg)
Acoustic Design	Ported cabinet, internally damped, two-way (passive crossover included)				Dual ported cabinet, internally damped
Cabinet Construction	Steel enclosure and UL94V-0 rated baffle and bezel				
Mounting System	Integrated 3-point toggle anchors				
Grille Construction	Powder-coated steel				
Available Colors	White (paintable surface)				

EV**I**D

EV **I**nnovative **D**esign

Owner's Manual

![EVID - EV Innovative Design]

Table of Contents

Safety First

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 all speakers be suspended taking into account all current national, federal, state and local regulations. It is the responsibility of the installer to ensure that all speakers are safely installed in accordance with all such regulations. When speakers are 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 user is responsible for making sure that the supporting surfaces, and any additional hardware used, is capable of supporting the loudspeaker. Any hardware used to suspend a loudspeaker array that is not provided by/associated with Electro-Voice® is the responsibility of others.

Product Description

EV

Welcome

Thank you for purchasing EVID™ Series loudspeakers. Read through this manual to familiarize yourself with the features, applications, and precautions before you use these products.

EVID™ Series loudspeakers use innovative design and materials to provide premium-level performance from compact surface-mount speakers.

Four models comprise the EVID™ Series: the 6.2 with dual 6-inch LF drivers and a 1-inch titanium tweeter with waveguide; the 4.2 with dual 4-inch LF drivers and a 1-inch titanium tweeter with waveguide; the 3.2 with dual 3.5-inch LF drivers and a .75-inch titanium direct radiator tweeter. The EVID™ 12.1, a subwoofer designed to augment and extend the full-range model's low-frequency response completes the line.

Important Features

- Line-array enhanced coverage control
- Organic, unobtrusive shape
- SAM™ (Strong-Arm-Mount™) system for secure and reliable mounting
- Extremely large speaker swing and rotation ranges for flexible placement and coverage everywhere
- Full bandwidth overload protection
- Weather resistant and paintable
- Dual LF transducers
- Extended bass
- Greater power handling and output
- Titanium HF transducers (4.2, 6.2 waveguide coupled)
- High sensitivity
- Shielded for video applications

Model Summary

EVID™ 3.2

Most compact of the EVID™ Series, the EVID™ 3.2 uses dual 3.5-inch LF drivers with a .75-inch titanium direct radiator tweeter to provide high-fidelity, full-range sound over an extremely wide coverage area. The EVID™ 3.2t includes a transformer for 70V or 100V systems.

EVID™ 4.2

The compact EVID™ 4.2 delivers very full-range sound from its dual 4-inch LF drivers and a 1-inch titanium tweeter with waveguide. It is able to deliver a 110-dB sound level over a wide coverage area. The EVID™ 4.2t includes a multi-tap transformer for 70V or 100V line distribution systems.

EVID™ 6.2

The EVID™ 6.2 is an extended-range high-output speaker with dual 6.5-inch woofers and a 1-inch titanium tweeter with waveguide, designed for high SPL over a wide coverage area. The EVID™ 6.2t includes a multi-tap transformer for a 70V or 100V line distribution system.

EVID™ 12.1

This subwoofer's unique 12-inch dual-voice-coil woofer design and side/front angled port system allows for powerful low-frequency reinforcement from a flexible, compact wall- or ceiling-mounted enclosure. The EVID™ 12.1's full, rich bass is an ideal addition to any EVID™ system.

Packing List (3.2, 4.2, 6.2)

Listed and illustrated below are the parts included in each boxed pair of EVID™ speakers.

Figure	Quantity	Part
A	2	Speaker System
B	2	SAM™ Assembly
C	2	Large Logo Cap
C	2	Small Logo Cap
D	1	Owner's Manual
E	1	Warranty Card
F	1	SAM™ Mounting Tool
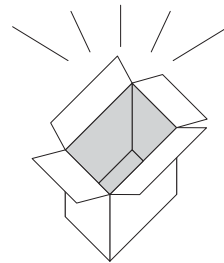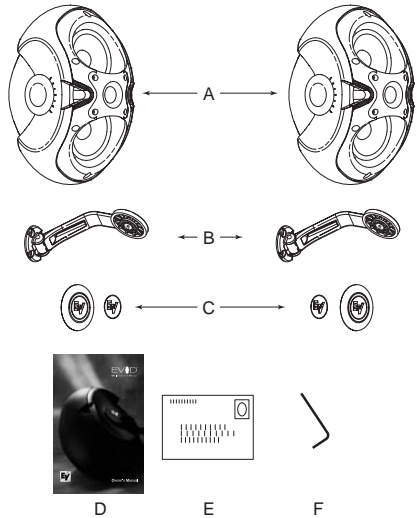
Figure 1: EVID™ Components

Product Description

EVID™ Product Family

8-ohm Impedance		
Part No.	**Model**	**Description**
301045-001	3.2	**Dual 3.5" Full-Range Shielded (Black)**
301045-002	3.2w	**Dual 3.5" Full-Range Shielded (White)**
301046-001	4.2	**Dual 4" Full-Range Shielded (Black)**
301046-002	4.2w	**Dual 4" Full-Range Shielded (White)**
301047-001	6.2	**Dual 6" Full-Range Shielded (Black)**
301047-002	6.2w	**Dual 6" Full-Range Shielded (White)**

70-Volt/100-Volt Equipped Units		
Part No.	**Model**	**Description**
301045-003	3.2t	**Dual 3.5" Full-Range Shielded (Black)**
301045-004	3.2tw	**Dual 3.5" Full-Range Shielded (White)**
301046-003	4.2t	**Dual 4" Full-Range Shielded (Black)**
301046-004	4.2tw	**Dual 4" Full-Range Shielded (White)**
301047-003	6.2t	**Dual 6" Full-Range Shielded (Black)**
301047-004	6.2tw	**Dual 6" Full-Range Shielded (White)**

Subwoofers		
Part No.	**Model**	**Description**
301048-001	12.1	**12" Dual Input (Black)**
301048-002	12.1w	**12" Dual Input (White)**

Product Feature Identification

Illustrated below are the major components of the EVID™ Series full-range speakers.

A. Shielded dual woofers
B. Coherent Coverage Waveguide horn (4.2 and 6.2 only)
C. Dual low-frequency ports
D. Treated woofer cones
E. Durable zinc-plated steel grille (not shown)
F. Cast aluminum Strong-Arm-Mount™ (SAM™)
G. Over 100 degrees of swing; 90 degrees of rotation
H. Simple keyed socket head adjustments
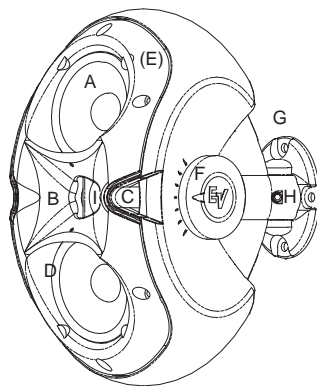I. Titanium dome tweeters with neodymium magnet structures
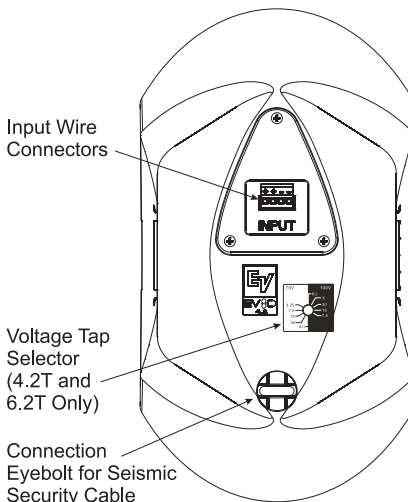

Figure 2: EVID™ Features (Front)

Input Wire Connectors

Voltage Tap Selector (4.2T and 6.2T Only)

Connection Eyebolt for Seismic Security Cable

Figure 3: EVID™ Features (Back)

SAM™ (Strong-Arm-Mount™) System

EVID™'s SAM™ system (Strong-Arm-Mount™) excels at meeting the four requirements for mounting FGM/BGM systems: simple, quick, versatile, and reliable. Three easy steps and you are done: Attach the surface bracket to the wall or ceiling; attach the EVID™ enclosure to the bracket with the socket-head bolt; aim the enclosure and tighten the bolt. SAM™ allows greater flexibility for aiming than ball-type mounts that limit range of motion when not on center. Typical ball designs have limited rotation when pointing straight ahead, and even that is reduced when the enclosure contacts the wall and is moved off axis. By contrast, SAM™ allows full rotation even at full sweep. Figure 4 shows SAM™'s range of rotation (note that EVID™'s curved cabinet allows it to rotate much further [90°] than a rectangular or trapezoidal box). Figure 5 shows the range of sweep motion left and right on the wall. All three models allow 100° of sidewise motion.
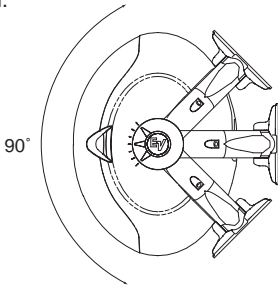
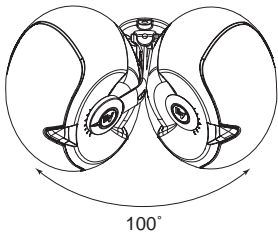

Figure 4: Rotation Range (90°)

Figure 5: Sweep Range (100°)

Step-by-Step Installation and Wiring (3.2, 4.2, 6.2)

Step 1: Mount the SAM™ Bracket to the Wall

The SAM™ bracket can be mounted on either side of the speaker, enabling optimal configuration for any installation. Determine whether the bracket should be mounted on the left or right side of the speaker before you bolt the speaker to the bracket. It is best to mount the bracket on the side away from the direction in which the speaker will be aimed. This ensures that the full swing angle is available for aiming on that side and provides easier access to the swing tightening bolt on the wall bracket (see Fig. 10, Step 3). For safety, make sure the mounting surface can support more than the speaker's weight! Use only industry-accepted fasteners and mounting methods when mounting the bracket. Consult an expert if you are not sure. Read steps 2 and 3 before wiring the speaker in step 4.

For standard vertical installation mount the SAM™ bracket as shown in Figure 6. For horizontal mounting configurations, mounting the bracket on the bottom side (as in Figure 7) is easiest and safest, and allows the speaker to be mounted closer to the ceiling.
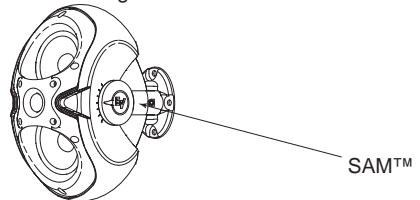

SAM™

Figure 6: SAM™ Mounted on Side
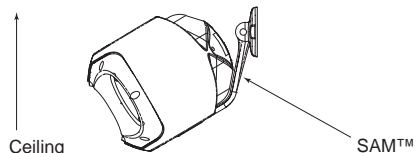

Ceiling   SAM™

Figure 7: SAM™ Mounted on Bottom

Product Description

EV

Step 2: Select Wattage Tap (Models 4.2t and 6.2t Only)

Before mounting the speaker to the bracket, select the proper wattage tap setting for your installation. The wattage selector switch is located at the rear of the speaker below the input terminal panel. The EVID™ 4.2t and 6.2t include a switch for selecting the power taps. The EVID™ 3.2t has a single power tap.

EVID™ 3.2t
A single (non-selectable) power tap rated at 5W@70V and 10W@100V.

EVID™ 4.2t
The power taps are 30W, 15W and 7.5W at both 70.7V and 100V, with a 3.7W tap for 70.7V only, as well as an 8 ohm transformer bypass setting.

EVID™ 6.2t:
The power taps are 60W, 30W and 15W at both 70.7V and 100V, with a 7.5W tap for 70.7V only, as well as an 8 ohm transformer bypass setting.

The taps for the models listed above are selected by a rotary switch on the back panel. A guide on the back of each speaker shows which switch positions to use for the power settings at 70V and 100V.

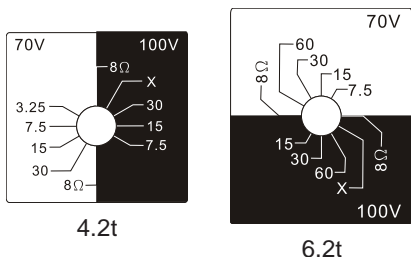Figure 8 below illustrates the settings for the 4.2t and 6.2t.

Figure 8: Wattage Taps (4.2t & 6.2t)

Step 3: Mount the Speaker to the SAM™ Bracket

Attach the speaker to the SAM™ bracket with the socket head bolt B, as shown in Figure 9.
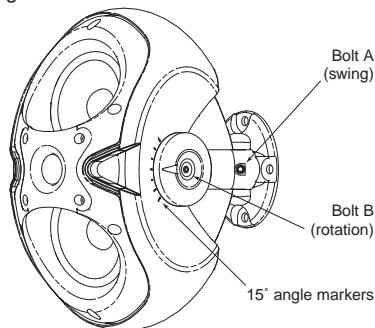
Figure 9: Tighten Socket Head Bolts

Using the provided security tool, tighten the two socket head bolts shown in Fig. 9. Select the proper horizontal angle and secure it by tightening Bolt A to the proper torque listed in Fig. 10. Then select the proper vertical angle and secure it by tightening Bolt B. Use the 15° angle markers as your guide (see Fig. 9). Attach both logo caps as shown in Figure 11 after tightening and securing the speaker.

Model	Torque
EVID 3.2	20-30 in-lbs (2.3-3.4 N-m)
EVID 4.2	30-50 in-lbs (3.4-5.2 N-m)
EVID 6.2	70-90 in-lbs (7.9-10.2 N-m)

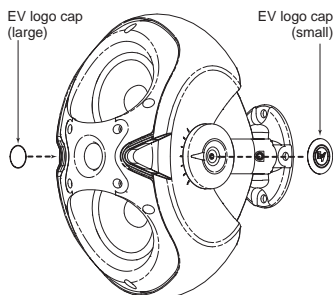**Figure 10:** Recommended Torque Settings for Bolt A

Figure 11: Attach Logo Caps

Step 4: Attach the Wiring to the Terminal Connector and Wire the Speaker

The 4-pin phoenix-style plug-in connector provides for a pass-thru audio connection to daisy-chain a line of speakers. Insert the bare end of wire into the appropriate connector terminals as described below. For parallel wiring, see Figure 12. When one input connector is removed, subsequent speakers will remain connected. For daisy-chaining, see Figure 13. When one input connector is removed, subsequent speakers will be disconnected. Screw down the hold-down screw until tight, using a small screwdriver. See Figure 14. The connector accepts up to 12 gauge wire.
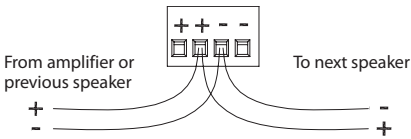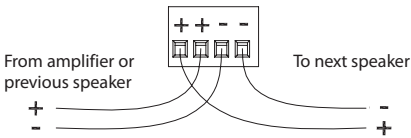
Figure 12: Parallel Wiring

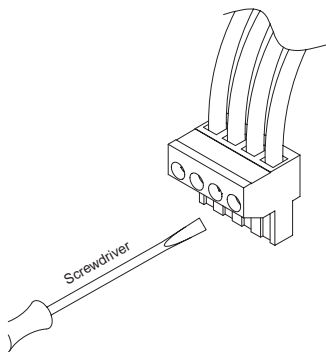**Figure 13:** Daisy-Chain Wiring

Figure 14: Tighten With Screwdriver

Step 5: Secure the Seismic Tab Connection Point

The rear of the enclosure includes an eyebolt for connection to a seismic restraint. Connect it to a properly rated hardware fitting that is securely installed independently of the SAM™ bracket. Even if your local construction code does not require the installation of secondary support, its use is highly recommended for further security.
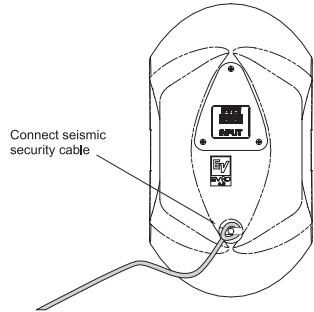
Connect seismic security cable

Figure 15: Secure Seismic Security Cable

Step 6: Test System Operation

After all connections are made, test the complete system operation. Appendix C (page 14) contains a troubleshooting table to assist in locating many speaker-related problems.
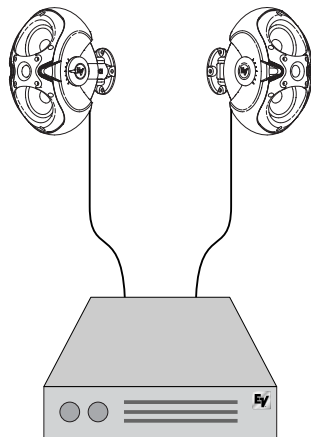
Figure 16: EVID™ System

Product Description

Packing List (12.1 Subwoofer)

Below is the list of parts included with the EVID™ 12.1 subwoofer. The parts are illustrated in Figure 17.

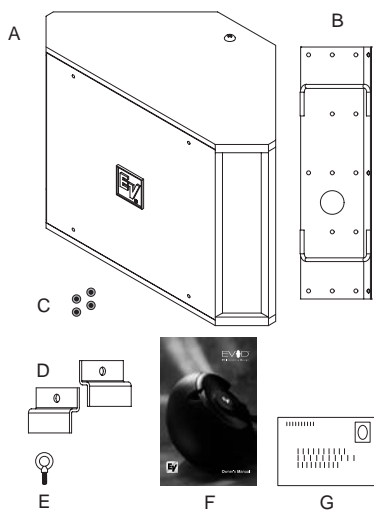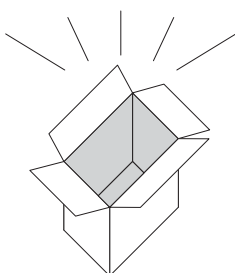| Figure	Quantity	Part
A	1	EVID™ 12.1 Subwoofer
B	1	Wall/Corner Mounting Bracket
C	2	Speaker Mounting Clips
D	4	Rubber Mounting Feet
E	1	Eyebolt
F	1	Owner's Manual
G	1	Warranty Card

Figure 17: EVID™ 12.1 Components

Product Feature Identification

The 12.1 subwoofer comes with a dual-mode mounting bracket that enables the unit to be easily mounted at either a wall/wall (corner) or on a wall/ceiling (midwall) junction. The included forged steel eyebolt provides the installer a solid attachment point for a safety line. The 12.1 subwoofer may also be safely installed protruding just 2 3/4" down through a standard suspended ceiling grid. See installation instructions.

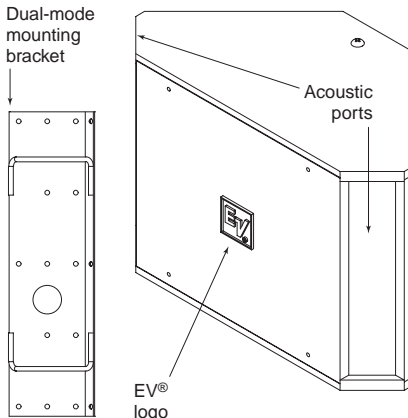Illustrated below are the major components of the EVID™ Series 12.1 subwoofer.
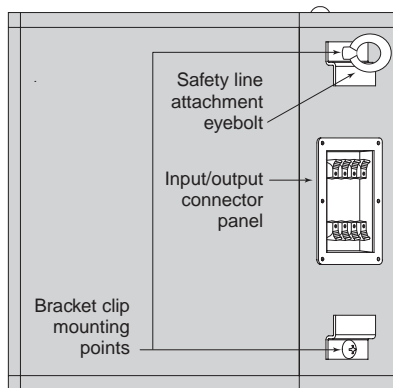
Figure 18: EVID™ 12.1 Features (Front)

Figure 19: EVID™ 12.1 Features (Back)

Step-by-Step Installation and Wiring (12.1 Subwoofer)

Step 1: Mount the Bracket

The mounting bracket can be installed two ways (see Figures 20 and 21), allowing optimal configurations for installations. **Leave 1.5" of space between the bracket and the ceiling when installing in a corner!**

Attach the bracket to the wall with suitable fasteners screwed into structural members in the wall. **Remember: It is the installer's responsibility to insure that the structure can safely support the load.**
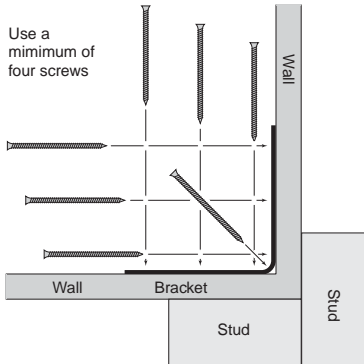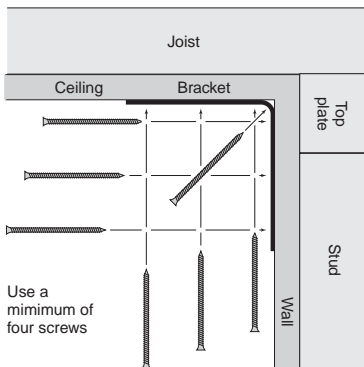

Figure 20: Corner Installation (Top View)

Figure 21: Midwall Installation (Side View)

Step 2: Install the Safety Line

Using accepted safe rigging practices, secure one end of a suitable safety line (use cable, not chain, which will rattle) to a strong, secure point above the speaker, a point that can withstand the shock of the falling speaker. This is especially important in public spaces constructed with light-gauge steel studs. **Do not attach the safety line to the bracket!** The safety line should prevent the speaker from falling if the bracket tears loose from the wall. Secure the other end to the eyebolt that is fully threaded into the enclosure.

Step 3: Wire the Speaker

The amplifier and satellite speakers are wired as shown in Figure 22. It is highly advisable to support the unit while these connections are being made. Connect all wires to the speaker at the back terminal plate observing proper polarity of the connections. The push-terminals accept stranded wire up to 14 gauge. When using two satellites, wire the speakers directly into the output terminals of the panel. Four satellites may be connected either as two pairs directly to the output terminals or with daisy-chain wiring as in Figure 23.
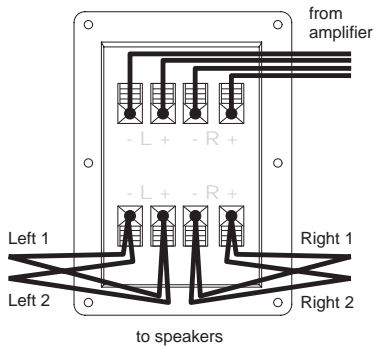

Figure 22: Direct Wiring Plan
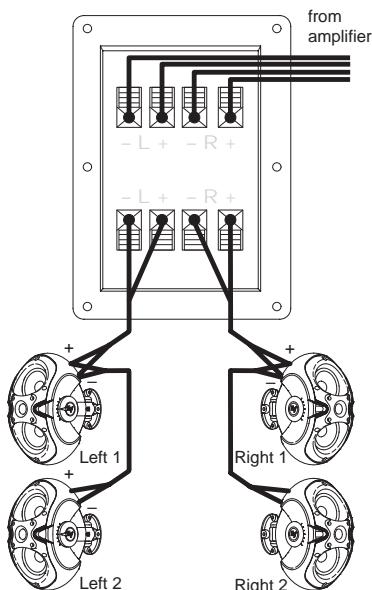
Product Description

Figure 23: Daisy-Chain Wiring Plan

Step 4: Mount the Speaker to the Bracket

First remove the two Phillips-head screws on the rear of the enclosure. Use the supplied eyebolt to mount one mounting clip to the top of the speaker as shown in Figure 24. Check to make sure that the wiring connections to the amplifier and the satellite speakers are correct and secure.

For corner mounting

Attach the four rubber mounting feet to the front side edges, and secure the safety line to the eyebolt. Lift the enclosure up to the ceiling and center it back it into the corner until it touches the bracket rungs, then carefully lower it so the top clip hooks over the top rung of the bracket (1). Insert one of the 3/8-16-thread Phillips-head screws through the remaining clip and, with the clip pointing up, thread the screw finger-tight into the lower mtg. hole on the enclosure (2, 3). Level the clip and tighten securely with a #3 right-angle Phillips screwdriver.

Even though the enclosure hangs from the top clip, always install the lower one to secure against possible disengagement of the top clip. Straighten the EV® logo and press firmly at its center to seat it securely into its mounting hole.
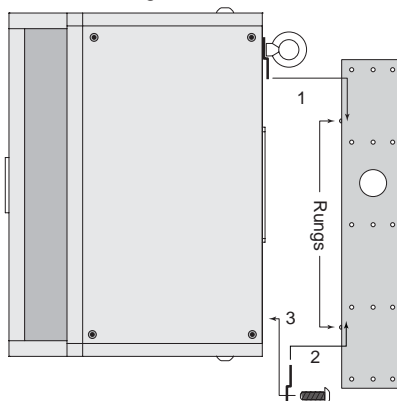

Figure 24: Corner Mounting

For midwall mounting

Attach the four rubber mounting feet inside the corners on the side of the enclosure that will be against the wall and attach the safety line to the eyebolt. Insert one of the 3/8-16-thread Phillips-head screws through the remaining clip and keep it within arm's reach. Lift the enclosure up to the ceiling and bring its back into contact with the bracket rungs. Slide the enclosure sideways to engage the clip over one bracket rung (1) and, while holding it tight against both rungs, insert the 3/8-16-thread screw with its clip into the remaining mounting hole so the clip engages the remaining bracket rung (2, 3). Finger-tighten the screw and straighten the clip. The enclosure may now be released. It will slide down the rungs until the four rubber feet are snug against the wall. Using a #3 right-angle Phillips screwdriver, securely tighten the second Phillips-head screw. Gently rotate the EV® logo a quarter turn and press firmly at its center to seat it securely into its mounting hole. See Figure 25 on p. 10.
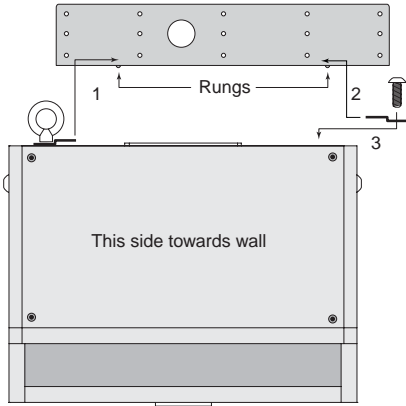
Figure 25: Midwall Mounting

Figure 26: Attach L-Angles to Speaker

Mounting through a suspended ceiling grid

On the rear of the enclosure install and tighten two 3/8-16-thread forged steel eyebolts (one is included) with a 3/8" flat washer under each. Cut two pieces of ordinary drop ceiling L angle (wall track) 23 3/4" long and screw them to the top and bottom of the enclosure with 3/4"-lomg sheet metal screws, as shown in Figure 26. Connect all the wires and suspend the enclosure, face down, by the eyebolts in accordance with accepted safe rigging practice. Adjust the length of the rigging cables so the tips of the installed L angles just rest on the ceiling cross-tees. This stabilizes the enclosure from rocking. Trim the ceiling panel to fit the new opening(s) and drop into place. It is the installer's responsibility to assure that the chosen rigging points are strong enough to support the load. **Warning: Never try to install this speaker in a suspended ceiling without proper rigging support!**

Floor Mounting

The EVID™ 12.1 may be placed directly on the floor in a corner or on its side along a straight wall by simply attaching the four rubber mounting feet to the side that will sit on the floor.
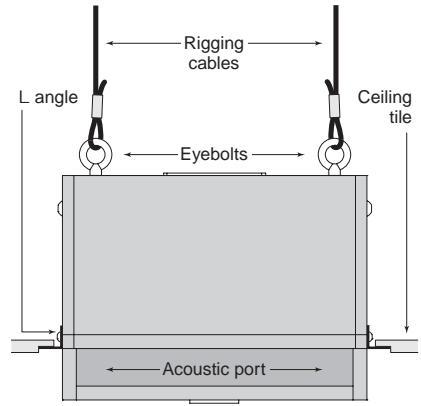
Step 5: Test System Operation

After all connections are made test the complete system operation. Appendix C on p. 14 contains a troubleshooting guide to assist in locating a variety of speaker related problems.

Safety Agency Compliance

The EVID™ 12.1 bracket system has successfully passed EIA 636 at a safety factor of 8:1. The bracket system is intended to support the EVID™ 12.1 only. Do not use it for any other purpose. Never set anything on, or hang anything from, the EVID™ 12.1 enclosure when using this bracket.

For a copy of the model-specific CE Declaration of Conformity, contact Electro-Voice at the address listed at the end of this manual.

Maintenance

Your EVID™ system has been designed and manufactured to provide years of durability and reliable service. No routine maintenance is necessary. Units may be cleaned by wiping with a soft, damp cloth. Never use solvents or harsh cleaning agents of any kind.

Uniform Limited Warranty

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 discretion) 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 statements below, or in the individual product 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 Electro-Voice® Service or any of its authorized representatives.

Obtaining Warranty Service

To obtain warranty service, a customer must deliver the product, prepaid, to Electro-Voice® Service or to 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 available from Electro-Voice® Service at 12000 Portland Avenue, Burnsville, MN 55337. Ph: (877) 863-4166.

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.

Speakers and Electronics

Electro-Voice® Speakers and Speaker Systems are guaranteed against malfunction due to defects in materials or workmanship for a period of five (5) years from the date of original purchase. The Limited Warranty does not apply to burned voice coils or malfunctions such as cone and/or coil damage resulting from improperly designed enclosures. Electro-Voice® active electronics associated with the speaker systems are guaranteed for three (3) years from the date of original purchase. Additional details are included in the Uniform Limited Warranty statement.

Installation Examples

The EVID™ Series is a product family with the flexibility to fit the requirements of many different applications. Listed below are some suggested combinations for systems using the 12.1.

• Rich, full-sounding low-level background music and paging in a quiet restaurant, office, or retail space: two EVID™ 3.2s in parallel on each output of a 12.1.
• Moderate-level music and paging in a sports bar/restaurant or upbeat retail space: two EVID™ 4.2s in parallel on each output of a 12.1.
• Higher-level foreground music in bass-heavy applications such as dance floors, amusement arcades, or loud bars: use one EVID™ 6.2 on each output of 12.1.

EVID™ systems may be used together. For example, a large hotel might use eight 3.2s and two 12.1s in the dining room, eight 4.2s and two 12.1s in the lounge, four 6.2s with two 12.1s surrounding the dance floor, 6.2s around the pool, 6.2s or 4.2s with or without 12.1s in the lobby, and 3.2s in the corridors.

Crossover Frequency and Impedance

The EVID™ 12.1 is designed to be used as a passive subwoofer. No additional amplifiers or signal processors are required to achieve full benefit of the 12.1's performance. The built-in passive stereo crossover sends the lowest notes of both stereo channels to the 12" dual-coil bass driver and reduces the amount of low frequencies sent to the satellite speakers. This allows them to play louder and cleaner while presenting a more even, amplifier-friendly impedance load than if all the speakers were connected in parallel. The EVID™ 12.1's crossover tunes a combination of electrical and acoustic characteristics to complement the response of the full-range EVID™ models. The crossover point is set electrically in the 160Hz range with a topology that enables the nominal system impedance to be determined by the number of satellites per channel.

Using a Separate Amplifier Channel for the 12.1

In certain specialized applications, it may be desirable to drive the subwoofer with a separate amplifier channel. In these applications the active crossover point must be at or below 160Hz so as not to interfere with the built-in passive crossover. Both sections (left and right inputs) must be connected in parallel (4 ohm system impedance) when operating as a mono device. No load resistors are necessary on the hi-pass outputs.

Characteristics of All Subwoofers

While subwoofers do radiate sound omnidirectionally (in all directions) and the sound is generally non-localizable (one can't hear exactly where it comes from), subwoofer sound level still drops off the farther one moves from the subwoofer. The highest output and best room loading are accomplished with the subwoofer mounted in a corner at a three-boundary junction (wall/wall/ceiling or wall/wall/floor, an arrangement also referred to as 1/8 space). Mounting at a two-boundary junction (wall/ceiling, or 1/4 space) produces three dB less output, and mounting in the middle of a room in the ceiling (1/2 space) reduces output still another three dB.

Subwoofers produce large amounts of long-wavelength low-frequency energy. Every object has its own resonant frequency, and long wavelengths tend to excite large objects (like walls, floors, doors and ceiling panels). Anything loose in or on a ceiling or wall will buzz or rattle as a subwoofer's level is increased. Most of these can be isolated and fixed with small, strategically placed bits of foam tape. Others may require driving additional nails or screws and perhaps some caulking to dampen their sympathetic movement. Be aware that as bass levels increase, so does the likelihood of rattles and buzzes.

Appendix B: Painting the EVID™ Speakers

The 12.1 subwoofer is a painted wood enclosure which can easily be repainted.

Painting Process (3.2, 4.2, 6.2)

The EVID™ 3.2, 4.2 and 6.2 are made of high-impact ABS, which accepts a wide variety of paints.

- Remove the grille and mask the baffle.
- Clean the cabinet and grille by rubbing the speaker with a lightly dampened cloth. Do not, however, use abrasives such as sandpaper or steel wool. Never use gasoline, kerosene, acetone, MEK, paint thinner, harsh detergents, or other chemicals, as these agents may cause permanent damage to the enclosure.
- After cleaning, apply latex or enamel paint. Spraying is recommended

Painting the Grille

- Painting the grille requires spray painting. If the grille is rolled or brush painted, the mesh may become clogged with paint and poor sound quality may result.

Painting Process (12.1 Subwoofer)

- Remove the four screws securing the front hatch and lift off the hatch panel. Carefully twist and lift off the EV® logo and set it aside.
- The foam grille blocks are held in place by sharp pins protruding through the baffle board. Note the relative position of the foam and carefully lift the blocks off the pins. Mask around the input panel with tape and tape a piece of heavy paper over the woofer. It is not necessary to remove any components.

- Clean the cabinet, bracket and clips by rubbing with a lightly dampened cloth. Do not use abrasives such as sandpaper or steel wool. Never use gasoline, kerosene, acetone, MEK, paint thinner, harsh detergents, or other chemicals, as these agents may cause permanent damage to the enclosure.
- After cleaning, apply two or more two thin coats of either latex or oil-based paint. Spraying is recommended, but a brush and small roller work very well. It is not necessary to paint all the way up to the woofer. Only the visible surfaces need to be painted: the hatch front and side edges, the exposed enclosure surfaces down to the hatch gaskets and about halfway under where the foam blocks sit. Likewise, the back sides of the bracket and clips need not be painted. The hatch screw heads may be painted, if desired.
- When the paint is thoroughly dry, carefully unmask everything. Replace the foam blocks, pressing them gently down onto the sharp pins. Replace the hatch cover and tighten the four screws. Locate the small center hole, properly orient the EV® logo, and press it firmly into place at its center to reseat it in the mounting hole.

Appendix C: Troubleshooting Table

EV●D
EV Innovative Design

Problem	Possible Causes	Action
No Sound	Amplifier	Connect a known working test speaker to the amplifier outputs. If there is no sound, check that all electronics are on, the signal routing is correct, the source is active, the volume is turned up, and so on. Correct/Repair/Replace as necessary. If there is sound, the problem is in the wiring.
	Wiring	Verify that you have connected the correct wire pairs to the amplifier. Play something at low level through the amplifier (for example, from a CD player or tuner). Connect the test speaker in parallel with the malfunctioning line. If the the sound has gone or is very weak, the line has a short in it (possibly a severe scrape, pinch, or staple puncture). If the sound level is normal the wire is open (possibly a cut wire or missed connection). Using the test speaker, move down the line and test each connection/junction until you find the problem and correct it. Observe proper polarity.
		If you are using the 12.1 subwoofer, use the test speaker to verify that you have the inputs and outputs connected to the correct wires. If the subwoofer input panel is not correctly wired, there will be little or no sound. Observe proper polarity.
Poor Low-Frequency Response	Speakers Wired Out-of-Polarity	When two speakers are connected out of polarity (out of phase), the low frequencies will cancel each other acoustically. Carefully observe the wire markings or tracers on your speaker wires. Verify that the amplifier (+) terminal is connected to the red speaker terminals and the amplifier (-) terminal is connected to the black speaker terminals.
	Improperly Wired Subwoofer Panel	Using a test speaker as described above, verify that all amplifier and speaker wires are connected to their proper terminals with the correct polarity. Reversing just one set of amplifier wires can cut out all bass output from the subwoofer.
Intermittent Output such as Crackling or Distortion	Faulty Connection	Check all connections at amplifier and speakers to ensure they are clean and tight. If the problem persists, it may be in the amplifier or wiring. See other actions above.
Constant Noise such as Buzzing, Hissing, Humming	Defective Amplifier or other Electronic Device	If the noise is present but no program material is playing, the likely cause is the signal chain in the electronics. Evaluate each component as necessary to isolate the problem.
	Poor System Grounding or Ground Loop	Check and correct the system grounding, as required.
If none of the suggestions below solves your problem, contact your nearest Electro-Voice service center or Electro-Voice distributor.		

Appendix D: Technical Specifications

EV

Specification	3.2/3.2t	4.2/4.2t
Frequency Response[1] (-10 dB)	85 Hz-20 kHz	65 Hz-20 kHz
Power Handling[2]	150 watts	200 watts
Sensitivity[3]	87 dB, 1 W/1 m	90 dB, 1 W/1 m
Impedance	8 ohms	8 ohms
Max SPL	104 dB	111 dB
Horizontal Coverage[4]	120°	100°
Vertical Coverage[4]	110°	90°
LF Transducer	2 × 3.5" (90 mm)	2 × 4" (90 mm)
HF Transducer	.75" (20 mm)	1" (25 mm)
Protection	Full System	Full System
Suspension/ Swing × Rotation	Multi-Axis 100° × 45°	Multi-Axis 100° × 45°
Terminals	4-Pin Phoenix-Style Plug-In Connector	4-Pin Phoenix-Style Plug-In Connector
Enclosure Material	ABS (paintable)	ABS (paintable)
"t"-version wattage taps	5 W 70 V/10 W 100 V	70 V: 3.25 W 70 V/100 V: 7.5 W, 15 W, 30 W, 8 ohm Bypass
Dimensions	9.2" × 5.1" × 6.5" 234 × 127 × 165 mm	12.2" × 6.9" × 8.5" 310 × 175 × 216 mm
Net Weight (each)	3.3 lbs (1.5 kg)	8.5 (3.9 kg)
Shipping Weight (pair)	8.6 lbs (3.9 kg)	19 lbs (8.6 kg)
Included Accessories	SAM, hex key	SAM, hex key

[1] Half space (wall mounting)
[2] Long Term Program Rating, 3 dB greater than continuous noise pink noise rating
[3] Avg. Half Space (wall mounting)
[4] When mounting with long axis in vertical plane

Specification	6.2/6.2t	12.1
Frequency Response[1] (-10 dB)	62 Hz-20 kHz	40 Hz-140 Hz
Power Handling[2]	300 watts	175/175 watts
Sensitivity[3]	95 dB, 1 W/1 m	100 dB, 1 W/1 m
Impedance	8 ohms	8 ohms
Max SPL	116 dB	122 dB
Horizontal Coverage[4]	100°	N/A
Vertical Coverage[4]	90°	N/A
LF Transducer	2 × 6" (90 mm)	12" (90 mm) high-excursion dual voice coil
HF Transducer	1" (25 mm)	N/A
Protection	Full System	N/A
Suspension/ Swing × Rotation	Multi-Axis 100° × 45°	N/A N/A
Terminals	4-Pin Phoenix-Style Plug-In Connector	Spring
Enclosure Material	ABS (paintable)	MDF (steel fastener reinforced)
"t"-version wattage taps	70 V: 7.5 W 70 V/100 V: 15 W, 30 W, 60 W, 8 ohm Bypass	N/A
Dimensions	16.5" × 9" × 11.75" 419 × 228 × 298 mm	16.25" × 23" × 12" 412 × 584 × 305 mm
Net Weight (each)	12 lbs (5.3 kg)	40 lbs (18.1 kg)
Shipping Weight (pair)	27 lbs (12.3 kg)	48 lbs (20.0 kg)
Included Accessories	SAM, hex key	Mounting brackets, hardware

[1] Half space (wall mounting)
[2] Long Term Program Rating, 3 dB greater than continuous noise pink noise rating
[3] Avg. Half Space (wall mounting)
[4] When mounting with long axis in vertical plane

General Description

The FMK flange mount kit is a permanent mounting accessory for the CP212 and CP218 podium microphone. The kit consists of a mounting flange, washer, nut, and three set screws, and is designed for installation into panel up to 3/4-inch thick,

Mounting a CP212 or CP218 is quick and easy using the FMK mounting kit.
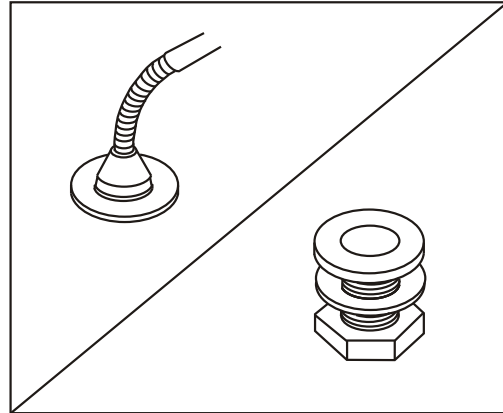
Installation

1. Select the microphone location by first checking for obstructions under the panel that will interfere with the microphone and for a flat surface to properly seat the washer and retaining nut. Panel thickness may not exceed ¾ inch.

2. Drill a 1 1/8-inch hole at the microphone location.

3. Set the roll-off switch on the microphone to the desired response.

4. Insert the microphone into the fixed mount adapter; secure by tightening the three set screws.

5. Insert the adapter into the drilled hole; secure this assembly with panel washer and retaining nut. Do not over-torque the retaining nut. Attach the microphone connector. For depth restrictions, a right angle audio connector may be required.

Warranty

Electro-Voice Accessories are guaranteed for one year from date of original purchase against malfunction due to defects in workmanship and materials. If such malfunction occurs, unit will be repaired or replaced (at our option) without charge for materials or labor if delivered prepaid to the proper Electro-Voice service facility. Unit will be returned prepaid. Warranty does not extend to finish, appearance items or malfunction due to abuse or operation under other than specified conditions, nor does it extend to incidental or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you.

Repair by other than Electro-Voice or its authorized warranty service agencies will void this guarantee.

A list of authorized service representatives is available from EVI Audio Service at:

12000 Portland Ave. South,
Burnsville, MN 55337
Phone: (952) 884-4051, (800) 828-6107
Fax: (952) 887-9212

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.
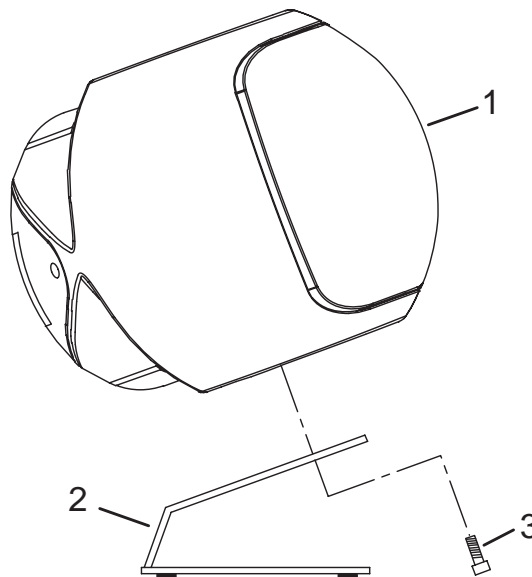
Specifications subject to change without notice.

EV Electro-Voice®

EV**ID**™
EV Innovative **D**esign

**HS Series
Horizontal Stand Assembly
Installation Instructions**

EV®

For Use with EVID Models 3.2 and 4.2

1. Remove Speaker and Wall Mount Bracket

    a. Remove Screw (1) from Speaker Bracket (2)
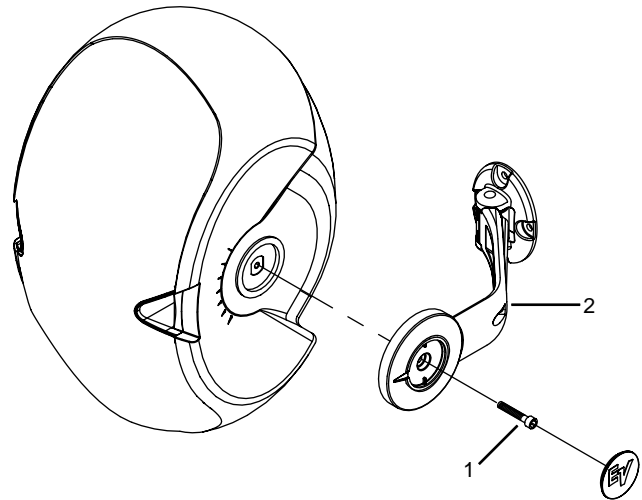
2. Attach EVID Speaker (1) to HS Series Stand (2) using the screw removed from step 1

AB-ZE (P/N 301918-001)

The AB-ZE is a versatile array bracket that is used to suspend EVID or ZX1i loudspeaker arrays, using a unique design to minimize assembly time. The AB-ZE kit is compatible with EVID 3.2, EVID 4.2, EVID 6.2, ZX1i-90 and ZX1i-100 loudspeakers, and can be used with either two or four loudspeakers to create 180° and 360° horizontal arrays, respectively. The loudspeakers attach to the array bracket using the Strong Arm Mounts™.

AB-ZE (301918-001) Parts List			
Item	Quantity	Part Number	Description
1	1	702121-001	Bracket, Array, 6" x 6" Extrusion, Black, AB-ZE
2	1	702128-001	Bracket, Safety, Black, AB-ZE
3	16	20413-CP	Nut, 1/4-20, Hex, Nylon Locking, Black Zinc
4	16	63036-CP	Screw, 1/4-20 x 3/4, Hex Socket Head, Cap, Black Zinc
5	16	38843-CP	Washer, .250 x .562 x .065, Flat, Steel, Black Zinc
6	1	38110-517	User Instructions, AB-ZE Array Bracket

Sample Configurations:

**3/8" Nut
(Not Included)**

**3/8" Nut
(Not Included)**
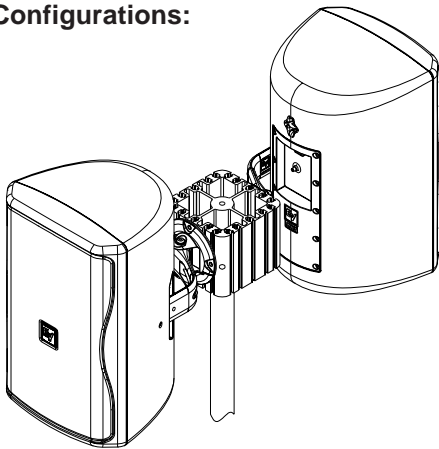
Note - Safety Bracket (Item 2) Not Needed for Tripod Configurations
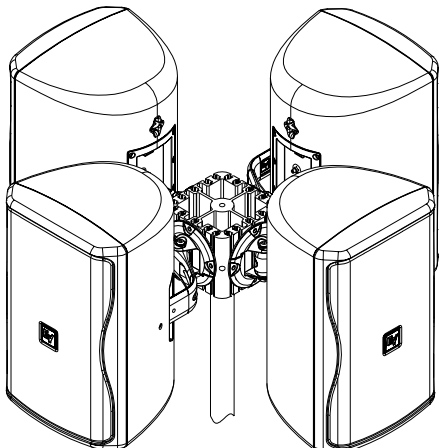
Figure 1:
Tripod Mounting Configurations
(2 and 4 Systems)
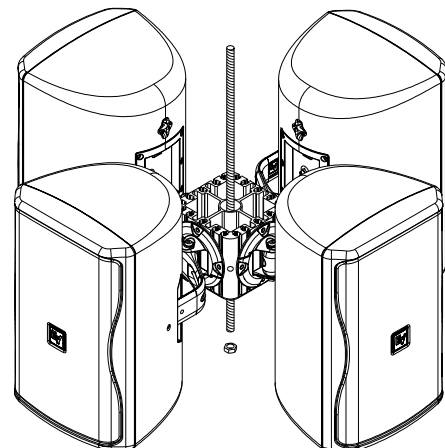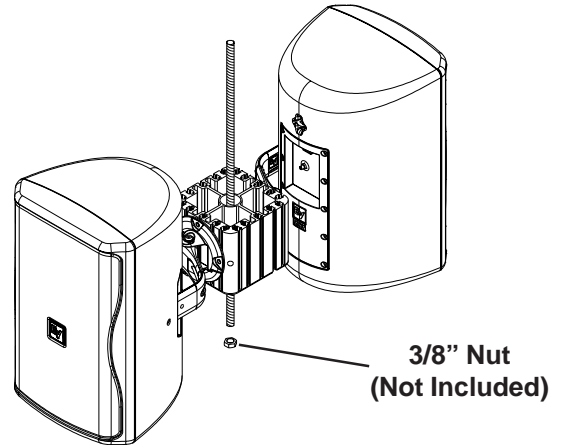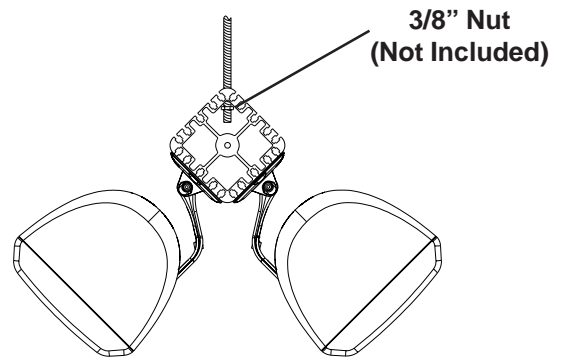
Figure 2:
Threaded Rod Suspension Configurations
(2 and 4 Systems, Horizontal and 45°)

To Attach the Strong Arm Mounts to the Array Bracket:

1. There are five channels on each side of the array bracket that correspond to different Strong Arm Mounts. ZX1i loudspeakers use the center channel and the two outer channels (Figure 3a), EVID 4.2 and 6.2 loudspeakers use the middle three channels (Figure 3b), and the EVID 3.2 uses the center channel only (Figure 3c).

2. Insert the (4) 1/4-20 x 3/4" bolts (Item 4) into the (4) washers (Item 5) and Strong Arm Mount (included with loudspeaker). Fasten the (4) lock nuts (Item 3) on the bolt by hand; the nut should be loose (Figure 4a).

3. Slide the (4) nuts into the appropriate channels on the array bracket (Item 1) until approximately centered (Figure 4b). Securely tighten the bolts using a 3/16" hex wrench (Figure 4c).

4. Repeat steps 1-3 for either two or four loudspeakers.

Center and Two Outer Channels Used

Middle Three Channels Used

Only Center Channel Used
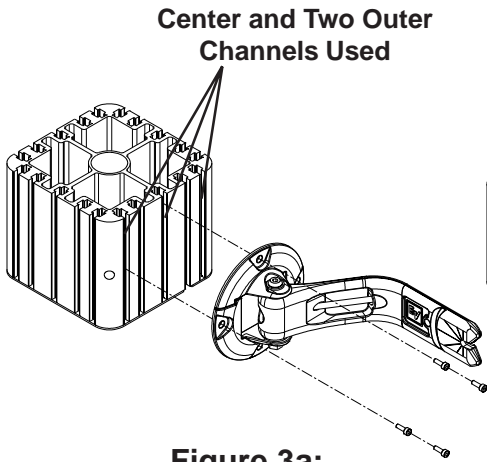
Figure 3a:
Array Bracket Channel Configuration - ZX1i Series
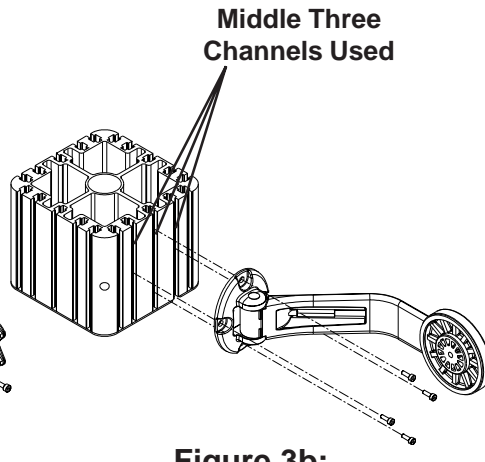
Figure 3b:
Array Bracket Channel Configuration - EVID 4.2 and 6.2
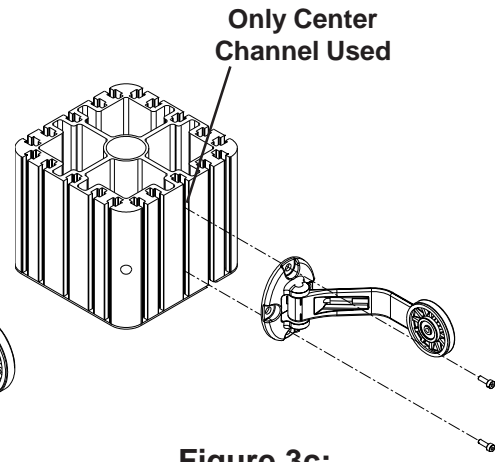
Figure 3c:
Array Bracket Channel Configuration - EVID 3.2

Note - **For Arraying EVID 3.2's, only (2) Nuts, Bolts, and Washers are Needed for Mounting. Only Use the Top and Bottom Holes in the Strong Arm Mount. All Other Models Use (4) Nuts, Bolts, and Washers for Mounting.**
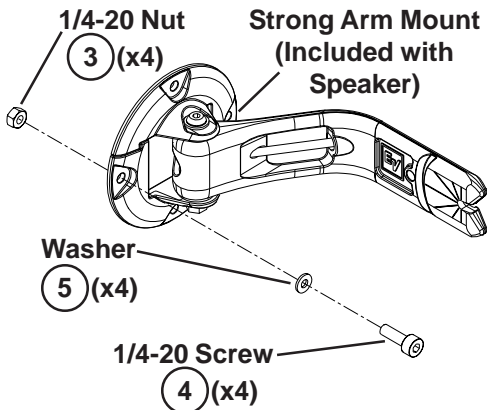
1/4-20 Nut
③ (x4)

Strong Arm Mount (Included with Speaker)

Washer
⑤ (x4)

1/4-20 Screw
④ (x4)

Figure 4a:
Loosly Assembling Fasteners to Strong Arm Mount

Strong Arm Mount with Fasteners Loosly Assembled

Array Bracket
①

Figure 4c:
Strong Arm Mount to Array Bracket Completed Assembly

Figure 4b:
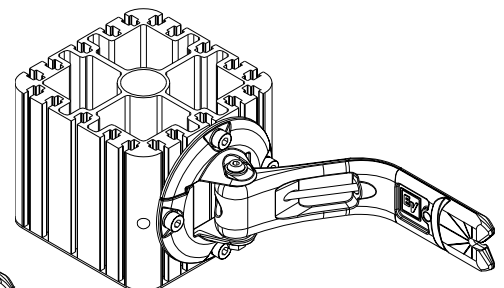*Assembling Strong Arm Mount to Array Bracket Channels*

To Attach the Array Bracket to a 3/8" Threaded Rod (Horizontal Configuration):
1. Fasten a 3/8" nut (not included) at least 2.75" from the bottom of the 3/8" threaded rod (Figure 5). Apply non-permanent threadlocker, such as Loctite 242, to the nut.
2. Slide the array bracket assembly and safety bracket (Item 2) over the threaded rod, with the larger diameter hole facing up and the safety bracket tabs locked in the channels of the array bracket (Figure 5).
3. Rotate the array to the desired position, and securely tighten a 3/8" nut on the threaded rod. Apply a non-permanent threadlocker, such as Loctite 242, to the nut, and check to ensure that all threads on the nut are engaged to the threaded rod (Figure 5).
4. It is strongly recommended that safety cables be attached from each loudspeaker to the top of the array bracket for added safety. Loop around the threaded rod and around the safety suspension point of the loudspeaker (Figure 6a).
5. It is strongly recommended that an additional safety cable be attached from the array bracket to a point on the beam for added safety. Loop through the corner hole of the array bracket to a point on the beam that the threaded rod is attached to (Figure 6b).
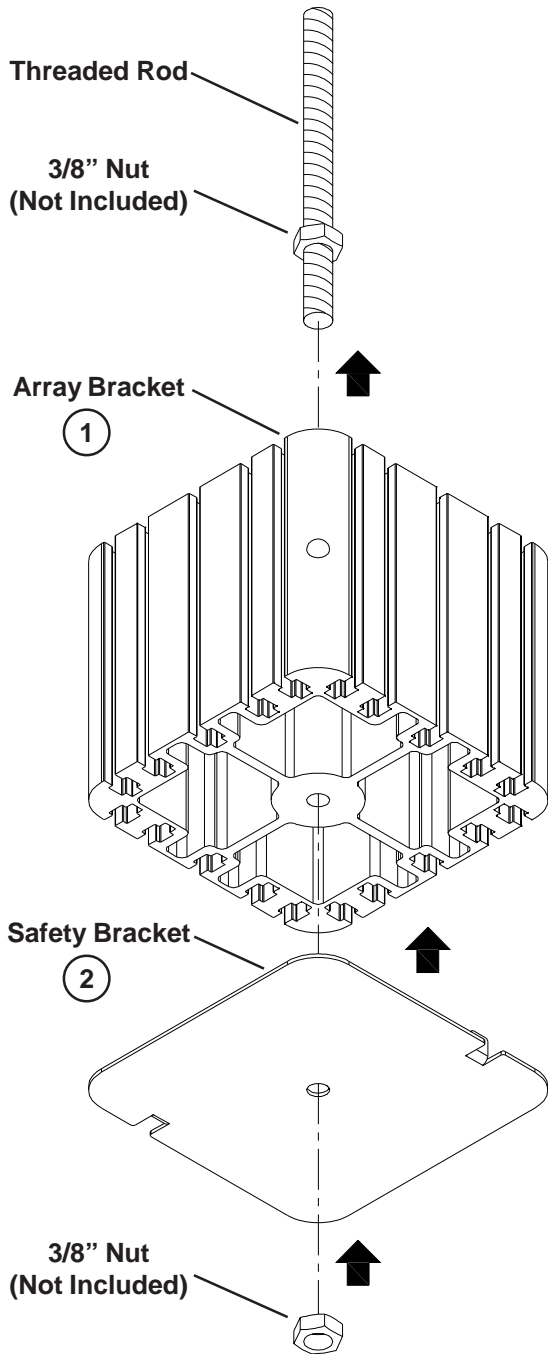
Threaded Rod

3/8" Nut (Not Included)

Array Bracket

1

Safety Bracket

2

3/8" Nut (Not Included)

Figure 5:
*Attaching Array Bracket Assembly
to Threaded Rod*

Safety Cables (Speaker to Rod)
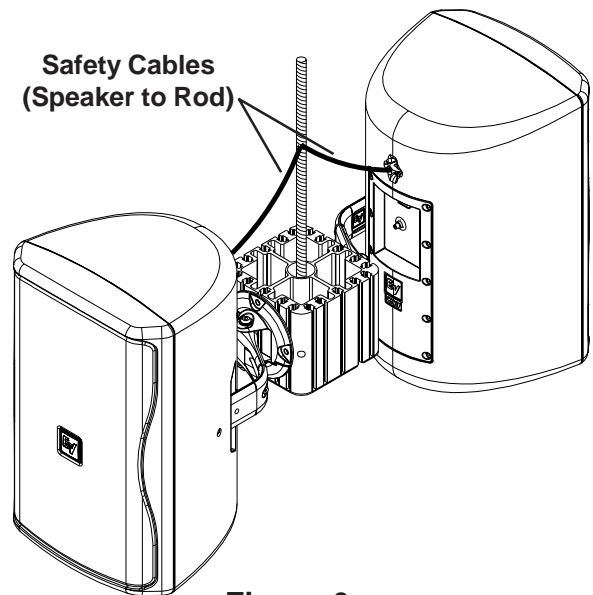
Figure 6a:
*Attaching Safety Cables from Each
Loudspeaker around Threaded Rod*
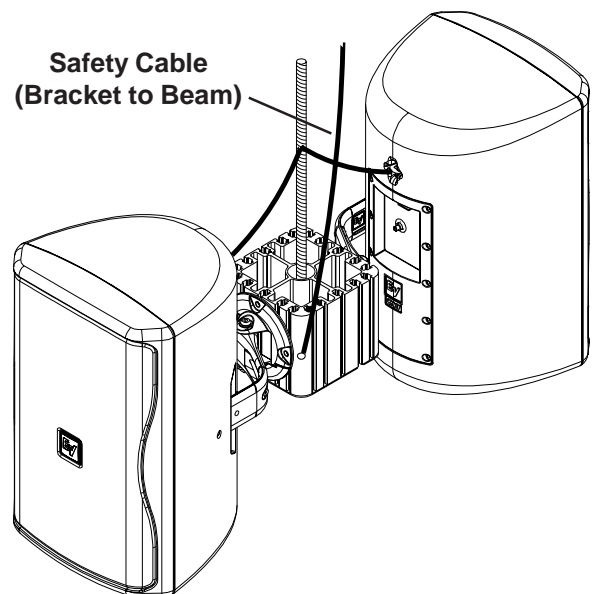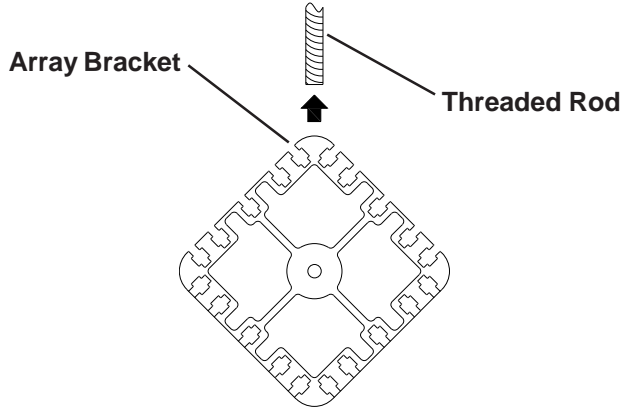
Safety Cable (Bracket to Beam)

Figure 6b:
*Attaching Safety Cables from Array Bracket
to Overhead Structural Support Beam*

To Attach the Array Bracket to a 3/8" Threaded Rod (Diagonal Configuration):
1. Apply non-permanent threadlocker, such as Loctite 242, to the 3/8" threaded rod and thread the array bracket onto the rod, using the corner hole. Leave approximately 1.5" of the threaded rod inside the array bracket (Figure 7a).
2. Apply non-permanent threadlocker, such as Loctite 242, to the 3/8" threaded rod and fasten the nut to the threaded rod unit it touches the array bracket (Figure 7b). Check to ensure that all threads on the nut are engaged to the threaded rod.
3. It is strongly recommended that safety cables be attached from each loudspeaker to the top of the array bracket for added safety. Loop around the threaded rod and around the safety suspension point of the loudspeaker (Figure 8).

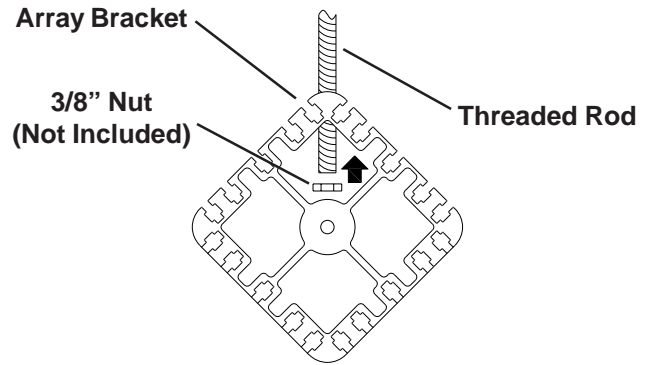**Figure 7a:**
*Threading Array Bracket onto
Bottom of Threaded Rod*

Figure 7b:
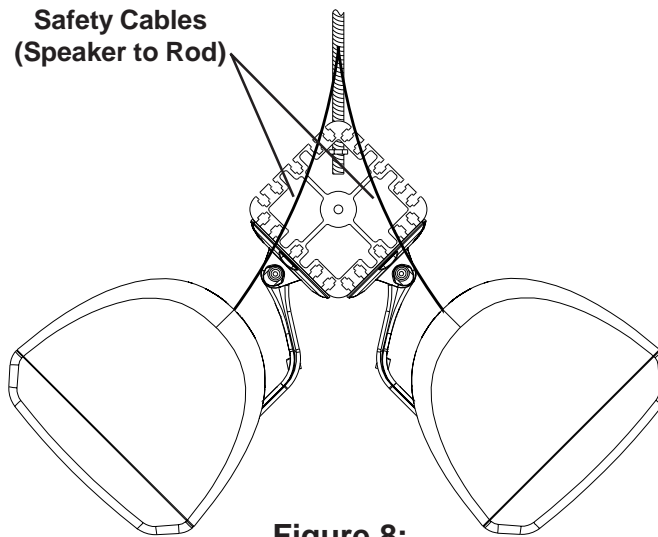*Threading Nut to Bottom of
Threaded Rod*

Figure 8:
*Attaching Safety Cables from Each
Loudspeaker around Threaded Rod*

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 all speakers be suspended taking into account all current national, federal, state and local regulations. It is the responsibility of the installer to ensure that all speakers are safely installed in accordance with all such regulations. If EVID or ZX1i speakers are 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.