EVID Compact Sound Speaker System

EVID-S44, EVID-S44W, EVID-2.1, EVID-2.1W, EVID-40S, and EVID-40SW

en | Installation Manual

Ev Electro-Voice

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1   Safety

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 suspending objects overhead. Electro-Voice strongly recommends all loudspeakers be suspended taking into account all current national, federal, state, and local laws and regulations. It is the responsibility of the installer to ensure all loudspeakers are safely installed in accordance with all such requirements. When loudspeakers are suspended, Electro-Voice strongly recommends the system be inspected at least once per year or as laws and regulations require. If any sign of weakness or damage is detected, remedial action should be taken immediately. The user is responsible for making sure the wall, ceiling, or structure is capable of supporting all objects suspended overhead. Any hardware used to suspend a loudspeaker not associated with Electro-Voice is the responsibility of others.

Safety Agency Compliance

The EVID 2.1 and EVID 40S bracket systems have successfully passed EIA-636 at a safety factor of 8:1. The bracket systems are intended to support only the EVID 2.1 and EVID 40S respectively. Do not use either bracket system for any other purpose. Never set anything on or hang anything from the EVID 2.1 or EVID 40S enclosures when using the brackets.

As an added safety measure, it is suggested the user install an extra suspension point back to the building structural supports. This redundant safety point should have as little slack as possible (less than one (1) inch is preferable).
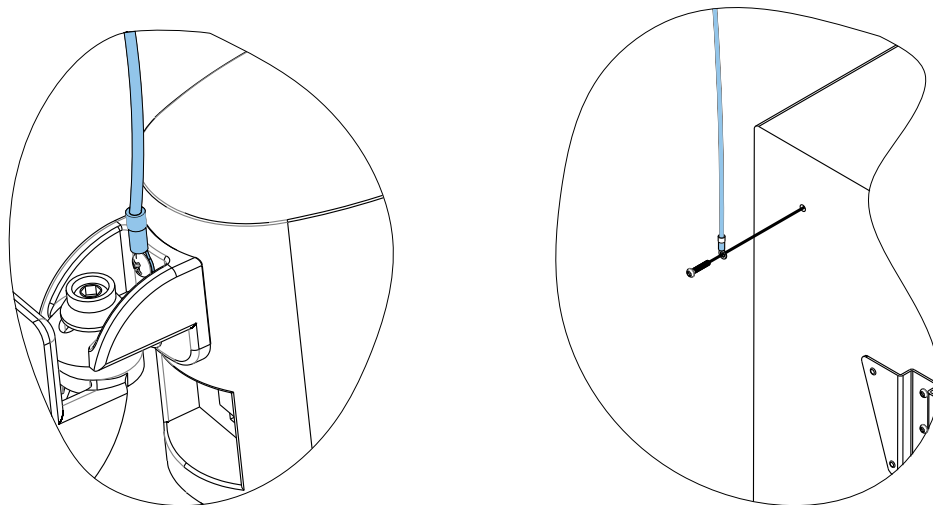

Figure 1.1: Surface mount satellite speaker (left) and surface mount subwoofer (right) with safety cable

2 Welcome

Thank you for purchasing the EVID Compact Sound Speaker System. Read through this manual to familiarize yourself with the features, applications, and precautions before you use these products.

The EVID Compact Sound Speaker System is a very compact full-range loudspeaker ideal for applications requiring high-quality sound. Its shape flexibility and size make it nearly invisible for use in background/foreground music systems for restaurants, bars, patios, retail, and other applications. The system consists of a high performance surface mount 8-inch subwoofer module with a crossover network to support the included four (4) surface mount 2-inch satellite speakers. The system provides for easy signal connections at the subwoofer and can support either 4/8 ohm or 70/100v signal connections. Its high power handling allows the system to be used in a wide variety of environments and spaces to provide high quality background or foreground music.

2.1 System features

- A complete matched background/foreground music speaker solution.
- High power handling – system supports up to 200 watts with 8 ohm and 100 watts with 70v/100v input connections.
- Large 8-inch woofer for increased low frequency output.
- Direct connection of satellites to subwoofer — simplifies installation wiring.
- Convenient detachable phoenix style signal connections speed up installation time.
- Large high quality rigid wood subwoofer cabinet supports extended bass response.
- Mounting system for surface mount satellites provides secure mounting but allows for wide-range of motion to adapt to any placement.
- Easily detachable wall bracket for wall mounting of subwoofer is included.
- Attractive subwoofer design with full face grille.

3 System overview

3.1 Packing lists

The EVID Compact Sound Speaker System contains four (4) satellite speakers and one (1) subwoofer. When you open the box for the full system you will find three (3) main boxes inside; two (2) boxes for the satellite speakers and one (1) box for the subwoofer.

The major components included in one (1) box for the EVID 2.1 surface mount satellite speaker.

Item	Qty	Description
A	2	EVID 2.1 surface mount satellite speakers
B	2	Wall brackets
C	2	Speaker brackets
D	1	EVID S44 Engineering Data Sheet
E	2	M6 hex drive pan-head screws
F	4	M5 pan-head screws
G	2	Screw sockets
H	1	Hex wrench

Table 3.1: Surface Mount Satellite Speaker (1 box)

A (x2)

B (x2)

C (x2)

D

E (x2)

F (x4)

G (x2)

H
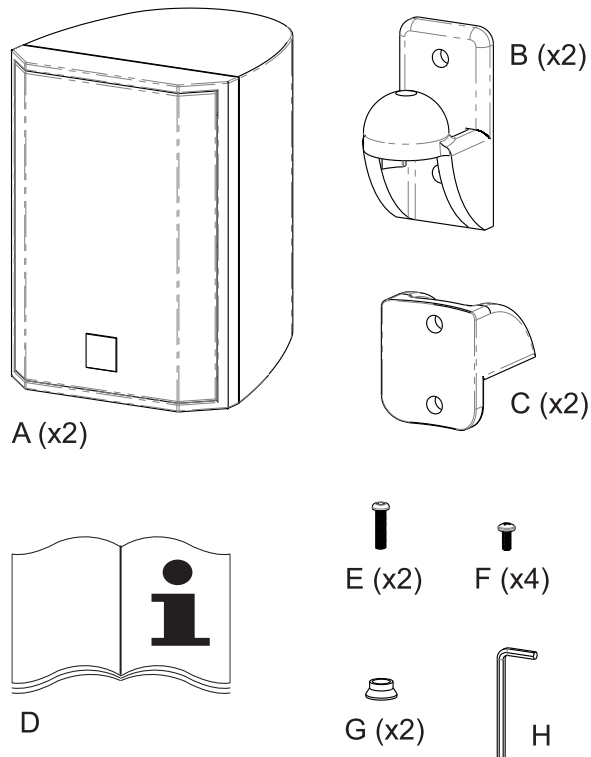
The major components included in the box for the EVID 40S surface mount subwoofer:

Item	Qty	Description
A	1	Surface Mount Subwoofer
B	1	Wall bracket, assembled in box
C	1	EVID Compact Sound Speaker System manual
D	4	M6 hex drive pan-head screw
E	4	Rubber feet
F	1	Hex wrench

Table 3.2: Surface Mount Subwoofer

3.2   Product information

M5 pan head screw

Screw socket

Speaker bracket

Wall bracket
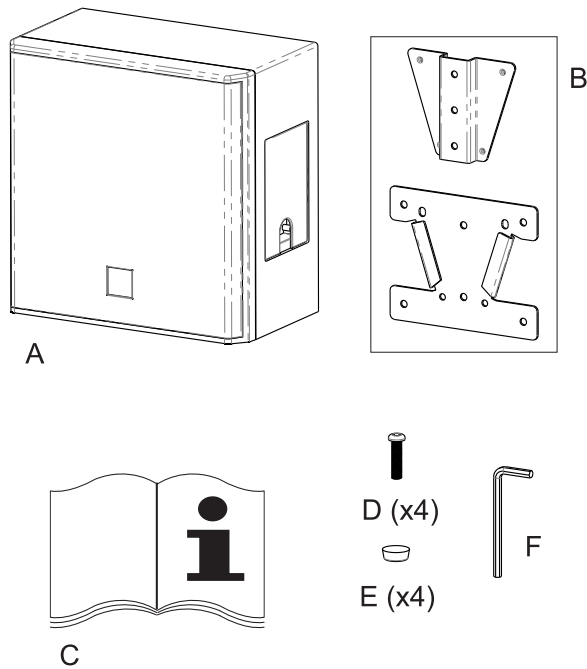
Speaker input
connection
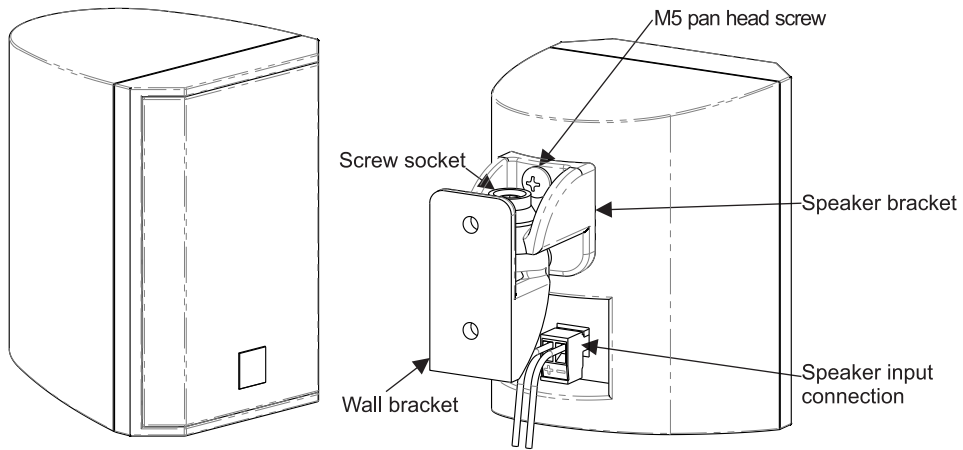
Figure 3.1: EVID 2.1 Product Information

Safety cable
attach point

Input connectors

Output connectors

Speaker bracket

Wire cover
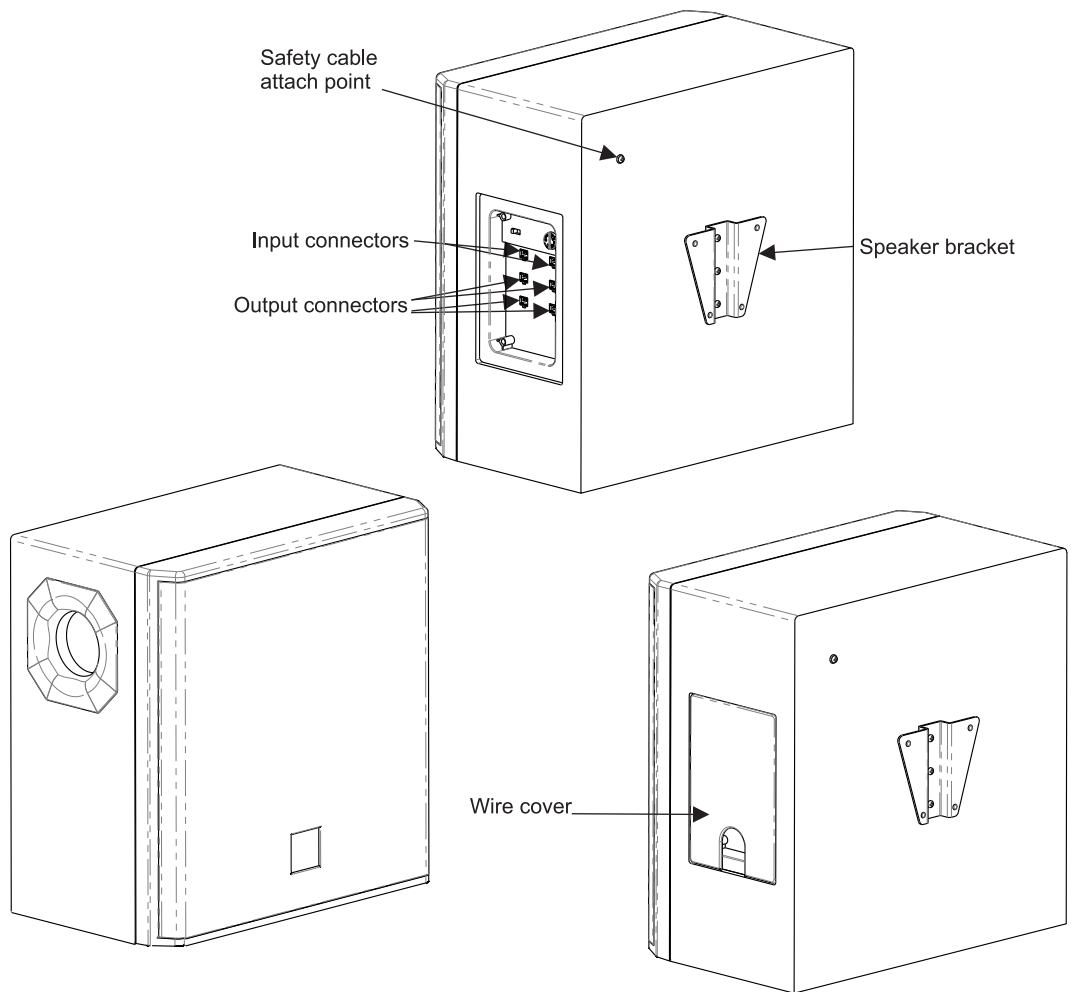
Figure 3.2: EVID 40C Product Information

3.3   Dimensions

143.60 mm[5.65 in]

85 mm[3.35 in]   95 mm[3.75 in]

115 mm [4.53 in]

101.80 mm[4.01 in]

35 mm [1.38 in]

Front   **Side**   **Mounting Bracket**
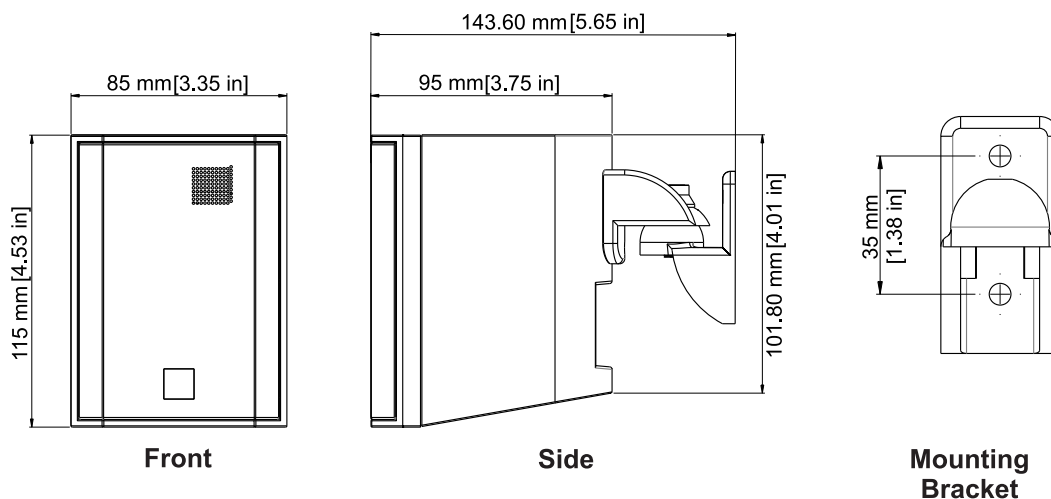
Figure 3.3: Dimensions EVID 2.1 and mounting bracket

400 mm [15.75 in]

395 mm [15.55 in]

247 mm[9.72 in]

230 mm[9.06 in]

130 mm[5.12 in]

65 mm [2.56 in]

400 mm [15.75 in]

97 mm [3.82 in]

70 mm [2.76 in]

42 mm [1.65 in]

46 mm [1.81 in]

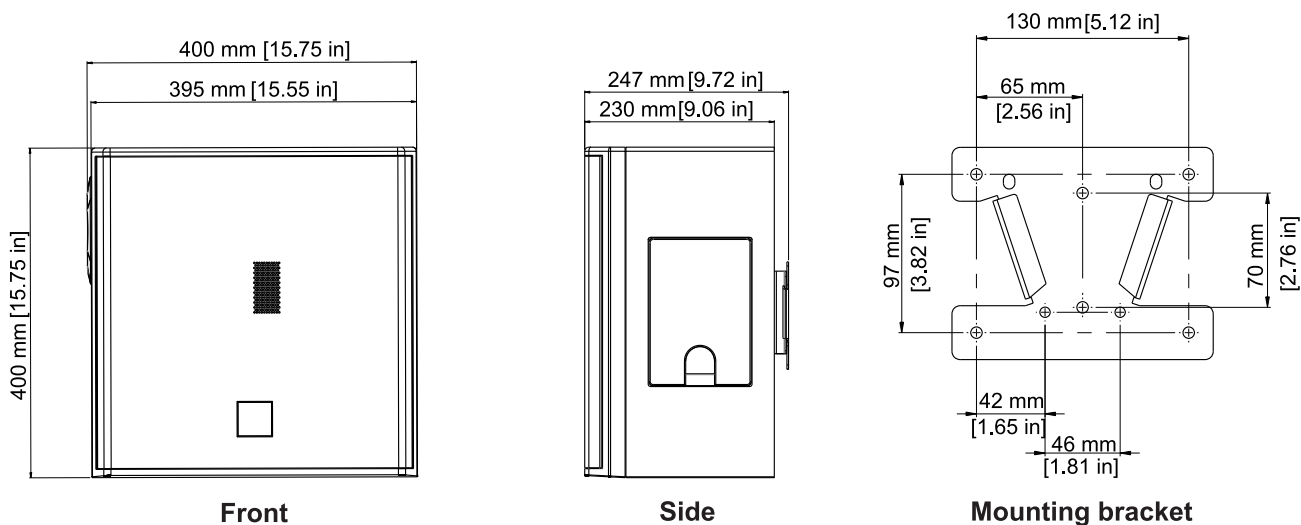**Front**   **Side**   **Mounting bracket**

Figure 3.4: Dimensions EVID 40S and mounting bracket

> **i** **Notice!**
> The mounting bracket dimension drawings are not to scale. Drawing sizes increased for readability.

4 Installation

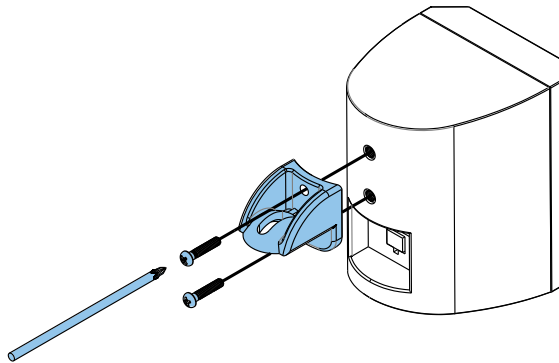## 4.1 Surface mount satellite speaker installation

For safety, ensure the mounting surface supports more than the weight of the speaker. Use only industry-accepted fasteners and mounting methods when mounting the wall bracket. Consult an expert if you are unsure.

To **install the surface mount satellite speaker**, do the following:

1. Using a Phillips head screwdriver (not supplied), tighten **two (2) M5 pan-head screws (not supplied)** to attach the wall bracket to a secure mounting surface.
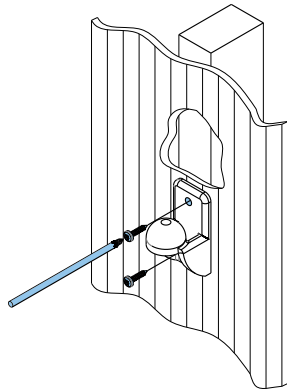
2. Using a Philips screwdriver, tighten **two (2) M5 pan-head screws (supplied)** to attach the speaker bracket to the rear of the cabinet.

3. Place the **speaker bracket** onto the wall bracket.

4. Using the hex wrench (supplied), tighten the **M6 hex drive pan-head screw** to secure the speaker bracket to the wall bracket.
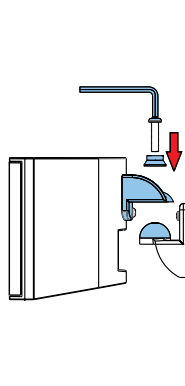
For more information, see *Safety, page 4*.

4.2   Wall bracket range of motion

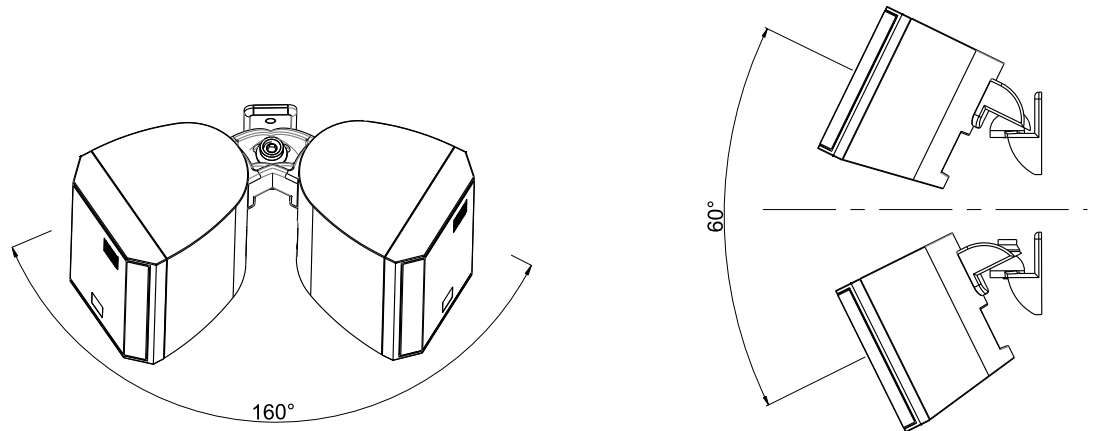The speaker can be adjusted from side to side or up and down.

Figure 4.1: Horizontal range is 160° and the vertical range is 60°.

4.3   Surface mount subwoofer installation

For safety, ensure the mounting surface supports more than the weight of the speaker. Use only industry-accepted fasteners and mounting methods when mounting the wall bracket. Consult an expert if you are unsure.

Caution!
Only mount the wall bracket in the vertical V-shape position.
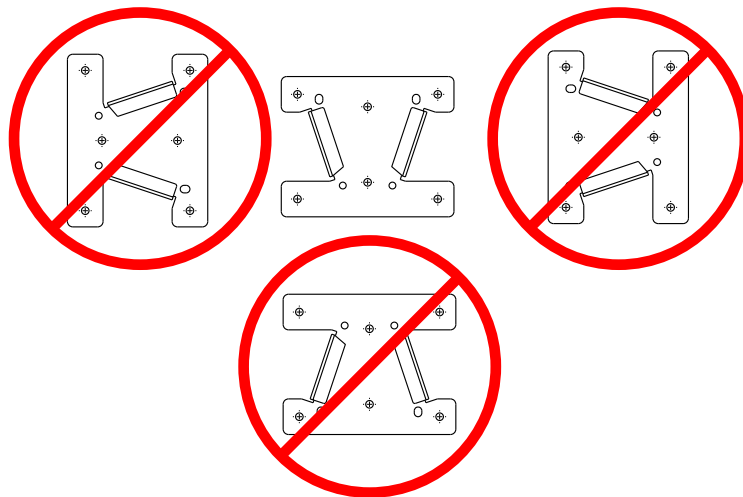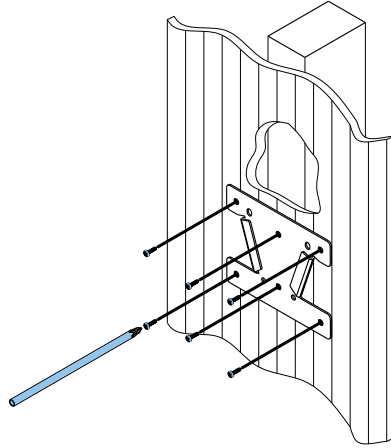Do not mount the V-bracket or wall bracket side ways or upside down.

**Figure 4.2: Wall bracket correct and incorrect mounting positions**

To **install the surface mount subwoofer**, do the following:

1. Using a Phillips head screwdriver (not supplied), tighten **six (6) M5 pan-head screws (not supplied)** to attach the wall bracket to a secure mounting surface.

2. Using the hex wrench (supplied), tighten the **three (3) M6 hex drive pan head screws** to attach the V-bracket.
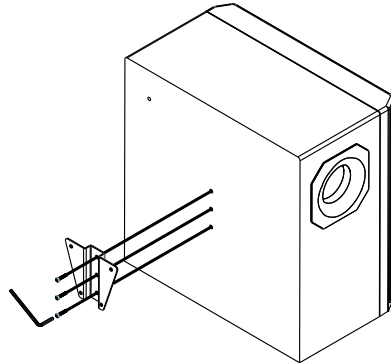
3. Slide the **V-bracket** into the wall bracket.
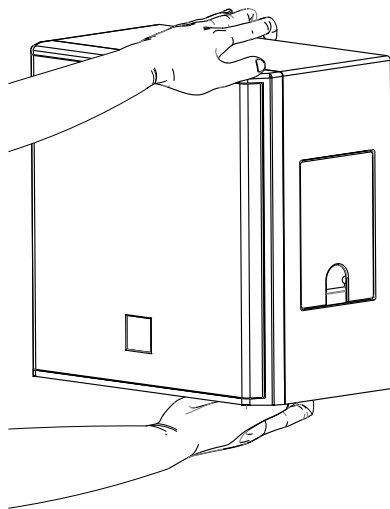   *The locking detents engage.*
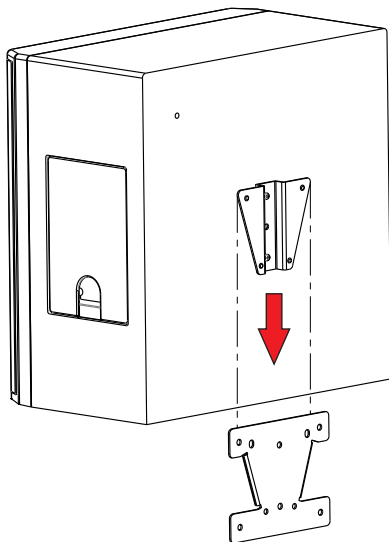
For more information, see *Safety, page 4.*

4.4   Removing subwoofer from the wall

To **remove the subwoofer from the wall**, do the following:

1.   Pull the **subwoofer** slightly out from the wall.

2.   Lift the **subwoofer** up.
      The locking detents disengage.

5 Wiring

5.1 Wattage tap

Prior to wiring your system, select the mode of operation (100V/70V/4 ohm or 8 ohm stereo) by setting the slider switch to the appropriate setting. Select taps using the rotary switch on the subwoofer input panel. The power taps are 100 W, 50 W, 25 W, and 12.5 W at 70.7V and 100V, as well as a 4 ohm transformer bypass setting. A guide on the input panel shows which switch positions to use for the power settings at 70V and 100V.
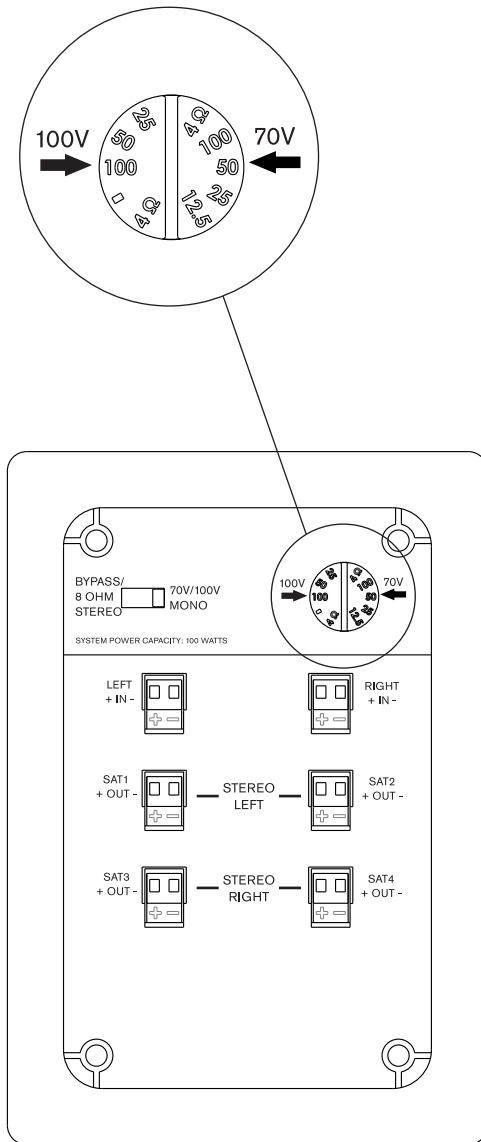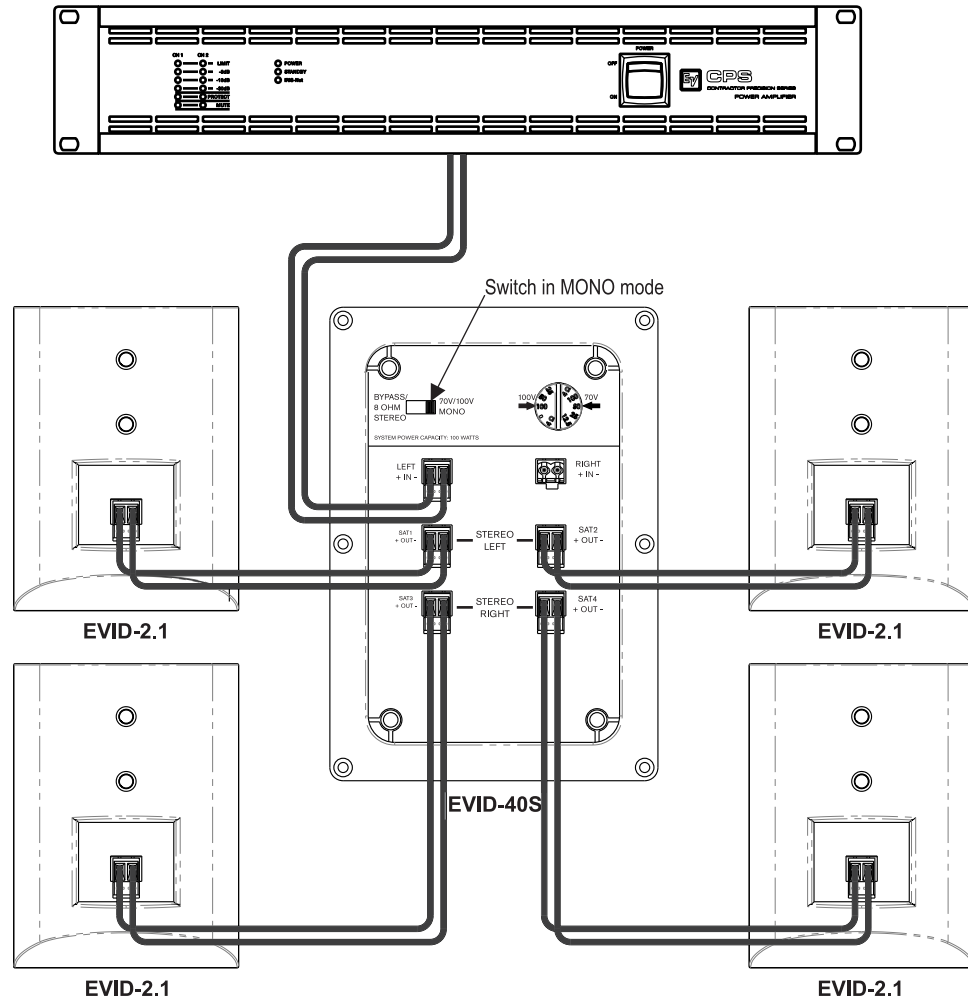

Figure 5.1: Wattage tap

5.2 70v/100v/4 ohm Mono

The amplifier and EVID Compact Sound Speaker System is wired for MONO mode. 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. After all connections are made test the complete system operation.

Notice!

The system is designed for operation with four (4) satellite speakers. Operation with less than four (4) satellite speakers is not recommended.

5.3   8 ohm Stereo

The amplifier and EVID Compact Sound Speaker System is wired for STEREO mode. 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 After all connections are made test the complete system operation.
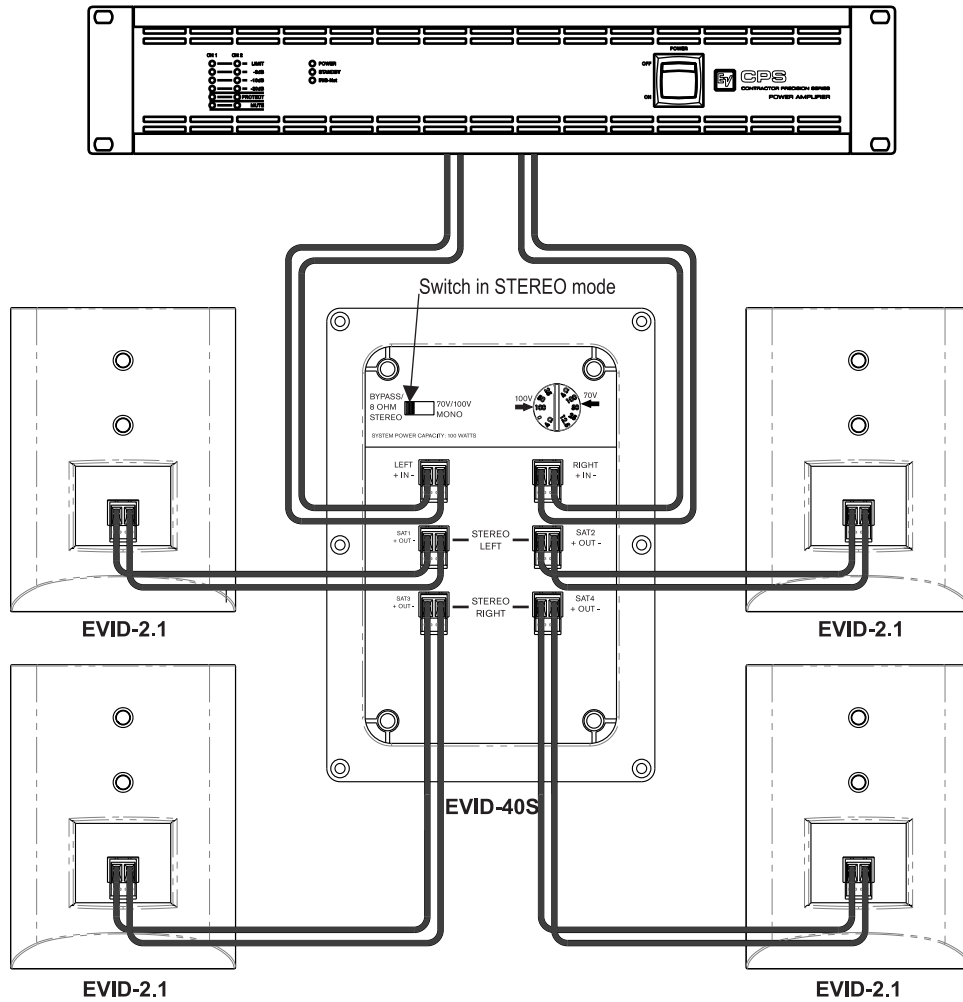

Notice!

The system is designed for operation with four (4) satellite speakers. Operation with less than four (4) satellite speakers is not recommended.

Notice!

A standard low impedance (4/8 ohm) amplifier source is required when operating the unit in STEREO mode.

100/70v operation is not supported in STEREO mode.

6   Troubleshooting

Problem	Possible Causes	Action
No Sound	Amplifier	Connect a known working test speaker to the amplifier outputs. If there is no sound, check 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 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 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.
		Verify 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 (2) 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 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 all amplifier and speaker wires are connected to their proper terminals with the correct polarity. Reversing just one (1) 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 these suggestions do not solve your problem, contact your nearest Electro-Voice dealer or Electro-Voice distributor.

7 Technical data

	EVID 2.1	EVID 40S
Frequency Response (-10 dB):	180 Hz - 20 kHz[1]	42 Hz - 300 Hz[1]
Power Handling:	30 W[2]	200 W[2]
Sensitivity:	84 dB[1]	88 dB[1]
Impedance:	16 ohms	Dual 8 ohm / mono 4 ohm
Maximum SPL:	100 dB[1]	114 db[1]
Voice Coverage (H x V):	150° x 150°[3]	Omnidirectional
Music Program Coverage (H x V):	100° x 100°[4]	Omnidirectional
Transducer:	50 mm (1.97 in)	200 mm (7.87 in)
Bracket Adjustment Range (H x V):	160° x 60°	Fixed
Connectors:	Phoenix (2-pin)	Phoenix (2-pin)
Enclosure:	ABS (fire rated)	Wood (MDF)
Transformer Taps:	NA	100 W, 50 W, 25 W, 12.5 W
Dimensions (H x W x D):	115 mm x 85 mm x 95 mm (4.53 in x 3.35 in x 3.75 in)	400 mm x 400 mm x 230 mm (15.75 in x 15.75 in x 9.06 in)
Net Weight: (each)	0.5 kg (1.1 lb)	12.05 kg (26.55 lb)
Shipping Weight:	1 sub and 4 satellites: 18.26 kg (40.25 lb)	
Included Accessories:	Wall bracket; hex wrench	Wall bracket; hex wrench

1. Half space (wall mounting).
2. Long Term Program Rating, 3 dB greater than continuous noise pink noise rating.
3. Average 1 kHz – 4 kHz.
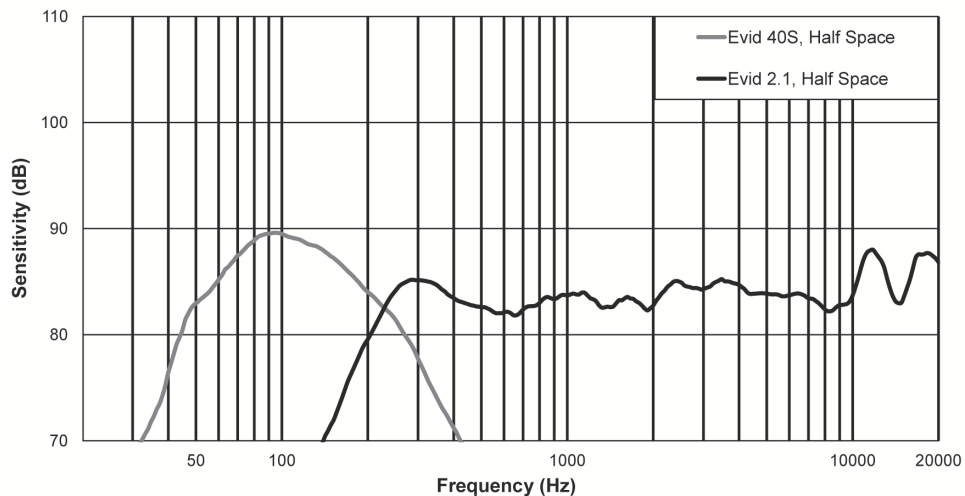4. Average 1 kHz – 8 kHz.

7.1 Frequency response

Figure 7.1: EVID-2.1 with EVID-40S frequency response