

EVID-S Surface Mount 12” Subwoofers

EVID-S12.1B | EVID-S12.1W

en | Installation manual



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1

Safety



Old electrical and electronic appliances

Electrical or electronic devices that are no longer serviceable must be collected separately and sent for environmentally compatible recycling (in accordance with the European Waste Electrical and Electronic Equipment Directive).

To dispose of old electrical or electronic devices, you should use the return and collection systems put in place in the country concerned.

1.1

Suspension



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.

Redundant safety point

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 1-inch is preferable).

1.2

Notices

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2 Introduction

The EVID-S12.1 subwoofer, from Electro-Voice, is a compact, high-performance, dual voice coil loudspeaker with outstanding performance for the most demanding professional and commercial sound applications. Designed and engineered for use in background and foreground music, and sound reinforcement applications, the EVID-S12.1 subwoofer is the ideal solution for indoor applications, such as restaurants, bars, patios, retail, fitness clubs, hospitality, theme parks, leisure venues, and others. The EVID-S12.1 subwoofer is the perfect solution for a wide variety of surface mount applications.

The EVID-S12.1 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 (mid-wall) junction. The included forged steel eyebolt provides the installer a solid attachment point for a safety line. The EVID-S12.1 subwoofer may also be safely installed protruding just 2-3/4" down through a standard suspended ceiling grid.

Read through this manual to familiarize yourself with the safety information, features, and applications before you use these products.

2.1 System features

- High-excursion 12" woofer with dual voice coil to accommodate L & R channels
- 200 W power handling provides for 127 dB maximum SPL (133 dB Peak)
- Crossover input panel included

2.2 Product information

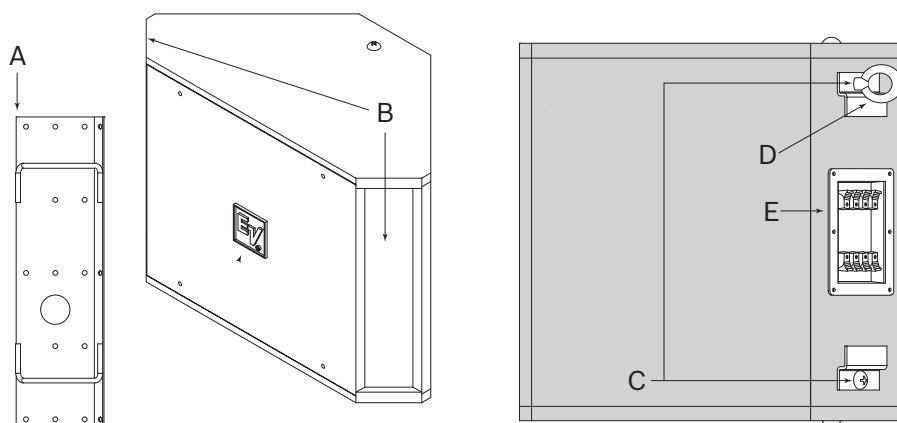


Figure 2.1: Product information

Item	Description
A	Dual-mode mounting bracket
B	Acoustic ports
C	Bracket clip mounting points
D	Safety line attachment eyebolt
E	Input/output connector panel

Table 2.1: Product information

2.3

Packing list

	Quantity	Component
A	1	Subwoofer
B	1	Wall/corner mounting bracket
C	4	Rubber mounting feet
D	1	Logo (spare)
E	2	Speaker mounting clips
F	1	Eyebolt
G	1	Installation manual

Table 2.2: Components list

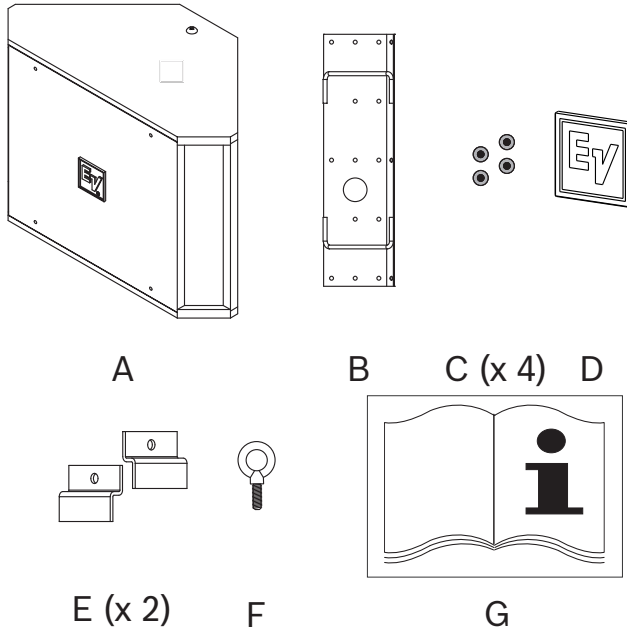


Figure 2.2: Components

3 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 loudspeaker. Consult an expert if you are unsure.



Caution!

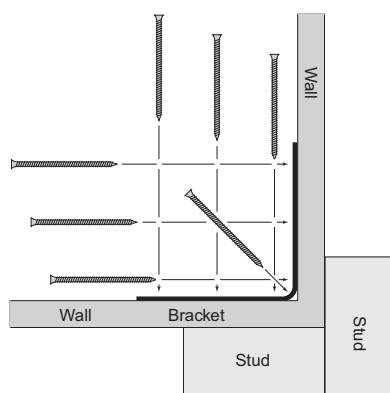
It is the installer's responsibility to determine and use the proper mounting hardware for the wall construction type.

Disregarding this caution could result in damage to the product and personal injuries may occur.

Installing the subwoofer to a wall

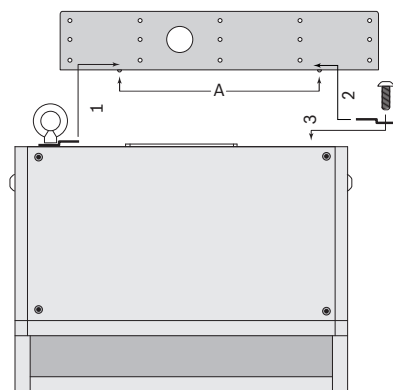
To **install the subwoofer to a wall**, do the following:

1. Attach the **bracket** to the wall.
If installing in a corner leave 1.5-inches (40 mm) between the bracket and the ceiling. Use a minimum of four screws.



2. Wire the **speaker**, as shown in the wiring section.
3. Remove the **two Philip-head screws** on the rear of the subwoofer.
4. Mount **one mounting clip** to the top of the speaker using the eyebolt (supplied).
5. Attach the **four rubber feet** inside the corners on the side of the enclosure that will be against the wall.
6. Attach the **safety line** to the eyebolt in the rear of the subwoofer.
7. Insert **one of the 3/8-16-thread Philip-head screws** through the remaining mounting clip.
Keep this hardware at arm's reach.
8. Slide the **enclosure** sideways to engage the top mounting clip over the bracket rung (1).

A: Rungs



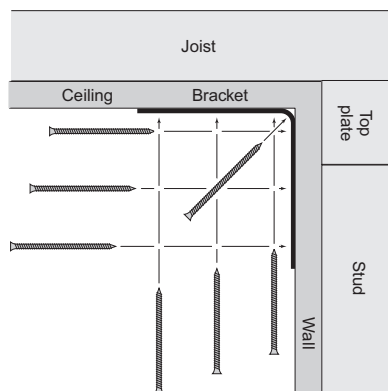
EVID-S Surface Mount 12" Subwoofers

9. While holding the subwoofer, insert the **3/8-16-thread Philips-head screws with the mounting clip** into the remaining mounting hole so that it engages the bottom bracket rung (2, 3).
10. Finger tighten the **screw**.
11. Straighten the **clip**.
Release the subwoofer.
12. Securely tighten the bottom **Philip-head screw** using a #3 right-angle Philips screwdriver.

Installing the subwoofer to a corner

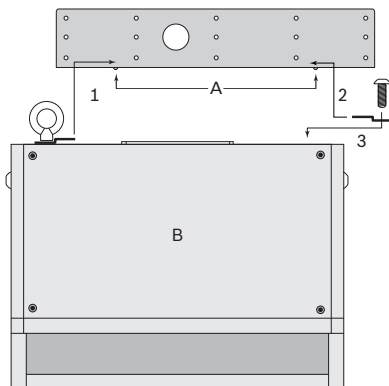
To **install the subwoofer to a corner**, do the following:

1. Attach the **bracket** to the wall.
Leave 1.5-inches (40 mm) between the bracket and the ceiling. Use a minimum of four screws.



2. Wire the **speaker**, as shown in the wiring section.
3. Remove the **two Philip-head screws** on the rear of the subwoofer.
4. Mount **one mounting clip** to the top of the speaker using the eyebolt (supplied).
5. Attach the **four rubber feet** to the front side edges.
6. Lift the **enclosure** and center it back into the corner until it touches the bracket rungs.
7. Carefully lower the **enclosure** so the top mounting clip hooks over the top bracket rung (1).

A: Rungs; **B:** This side towards wall



8. Insert one of the 3/8-16-thread Philips-head screws through the remaining mounting clip (2, 3).
9. Finger tighten the **screw**.
10. Straighten the **clip**.
Release the subwoofer.
11. Securely tighten the bottom **Philip-head screw** using a #3 right-angle Philips screwdriver.

4

Wiring

The amplifier, the subwoofer, and the speakers are wired for STEREO operation. 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.

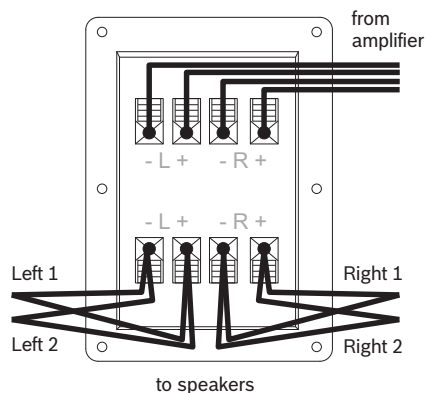


Figure 4.1: Direct wiring plan

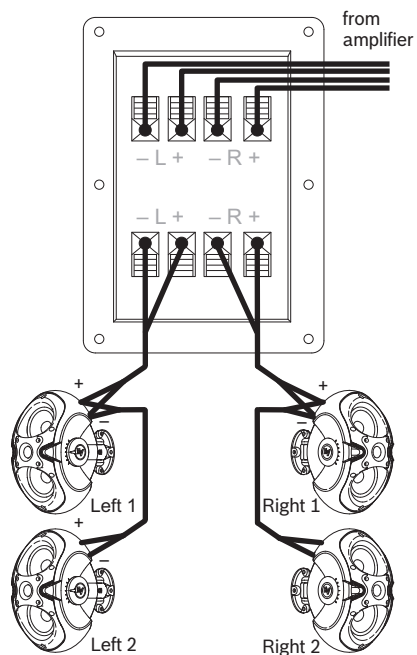


Figure 4.2: Daisy-Chain wiring plan

5 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 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 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.

6 Technical data

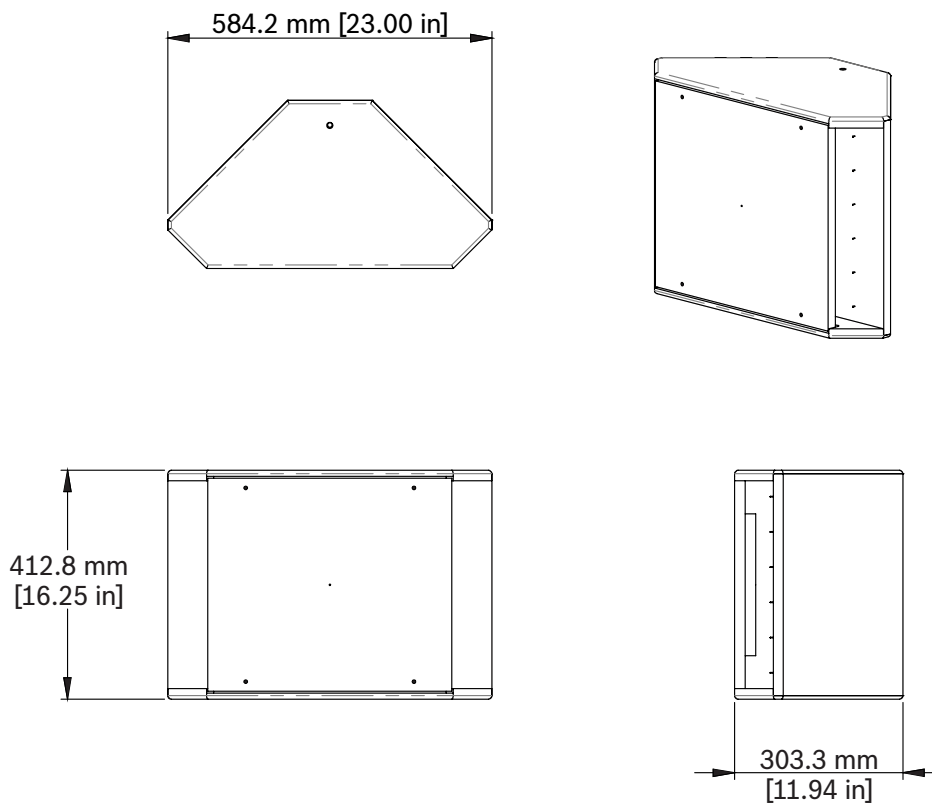
Frequency response (-10 dB):	40 Hz – 140 Hz ¹
Sensitivity:	104 dB ²
Max. SPL (Calculated):	127 dB (133 dB Peak)
Power handling:	200 W (800 W Peak) Continuous Pink Noise (100 hours)
Low Z:	Yes
Nominal impedance:	8 Ω
LF transducer:	12 inch (305 mm)
Connectors:	Spring loaded
Color:	Black (RAL 9004) or white (RAL 9003)
Dimensions (H x W x D):	413 mm x 584 mm x 303 mm (16.3 in x 23.0 in x 11.9 in) ³
Net weight:	17.8 kg (39.2 lb) ³
Shipping weight (pair):	22.4 kg (49.4 lb)
Included hardware:	(1) Wall mounting hardware
Packaged quantity:	1

¹Eighth (1/8) space (corner mounting).

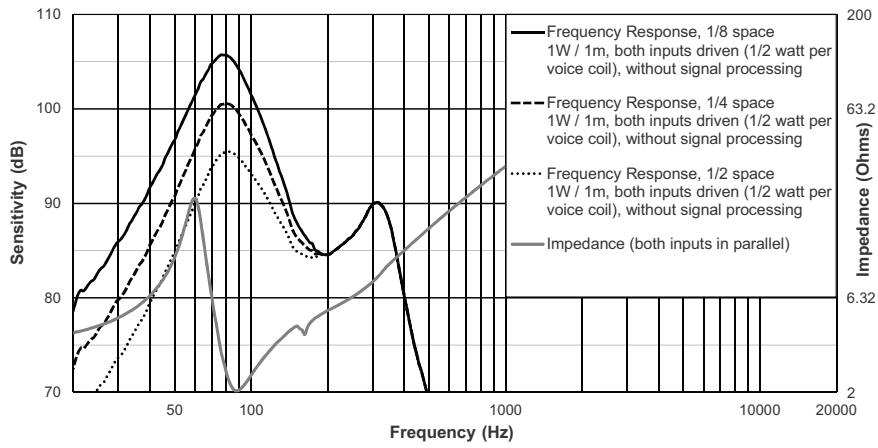
²Eighth (1/8) space (on corner) averaged 60 Hz – 100 Hz, 1 W.

³Without mounting hardware.

6.1 Dimensions



6.2 Frequency response and impedance



7

Appendix A: painting process

The EVID-S12.1 subwoofer is a painted wood enclosure which can easily be repainted.

- Remove the four screws securing the front hatch and lift off the hatch panel. Carefully peel off the EV logo.
- 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 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. Properly orient the EV logo and press it firmly into place.

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